

ABSTRACT

Title of Document THE PASSAGE TYPE AS A GENERATOR FOR URBAN
CONNECTIVITY

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This thesis takes two subjects - Type and Site - and uses them in a design that calls attention to the responsibility of the architect towards creating civic pedestrian connections. The Passage or Arcade Type is studied for its architectural, urban and social role in creating civic space. The site of Canary Wharf is studied for its lack of connectivity, character, and scale. The Thesis Design applies the Passage to the Urban Design of a connection space at Canary Wharf.

This thesis provides a platform for critiquing modern architecture and planning at Canary Wharf. It also provides a method for reintroducing the Passage Type to modern planning and design.

THE PASSAGE TYPE AS A GENERATOR FOR URBAN CONNECTIVITY

By

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CONTENTS

INTRODUCTION	1
The Passage Type as a Generator for Urban Connectivity	2
INVESTIGATION #1: THE PASSAGE	3
The Passage - An Introduction	5
Passages out, Malls in	6
The Mall - a poor substitute for the Passage	7
Civic Space in Commercial Architecture	9
The Universal Problem	9
The Anatomy of a Passage	10
The Path	12
Bay Organizational Strategies	13
Terminus	14
Hierarchy	16
Irregularity	17
PRECEDENT ANALYSIS: THE PASSAGE	19
Precedent Images	20
Leadenhall Market	22
Market In Manchester	23
Printworks, Manchester	24
Hays Galleria, London	25
Princes Square, Glasgow	26
Waitrose Grocery Store	27
Covent Garden Market, London	28
Ricardo Bofill Passage, Paris	29
Barton Arcade	30
Entrance To The Burlington Arcade	31
Burlington Arcade, London	32
Galerie Vivienne, Paris	33
Picadilly Arcade, London	34
Clarendon Centre, Oxford	35
Entrance To The Royal Arcade, London	36
Royal Arcade, London	37
Royal Opera Arcade, London	38
Galleria Vittorio Emmanuel II, Milan	39
Cleveland Arcade, Ohio	40

Victoria Shopping Centre, Harrogate	41
National Museum Of Scotland, Edinburgh	42
Leftbank Apartments, Manchester	43
Apple Store, London	44
INVESTIGATION #2: THE SITE	45
Goals in Site Investigation	46
Introduction to Site Relevance - Canary Wharf	48
Consumerism and the need for Realism	48
The Formation of Honest Architecture	49
Testing the Concepts	50
Site History - Past to Present	52
1740 - The Isle of Dogs	52
1797, 1799, 1802 - Industrialization and Planning	52
1822, 1841- Import Export Docks	53
1881 - Docklands	53
1981 - LDDC and the Enterprise Zone	54
Humanizing Elements	65
Key Places at Canary Wharf	67
Site Future - Current Development Pressures	76
Anticipated Development	76
1 North Quay	77
2 Columbus Tower	78
3 Heron Quays West	79
4 Pedestrian Footbridge	80
5 Park Place Office Building	81
6 Landmark, Marsh Wall	82
7 Harbour Quay Hotel Yacht, West India Dock South	83
APPLICATION: A DESIGNED CONNECTION	84
Introduction to Application	85
Design Process - Meetings	86
Connection Type Analysis	88
Application: Dock Edge Dogleg	91
Tower Type Analysis	92
Analysis & Diagrams	92
Process	92
Application	96
Design Diagrams	97
Thames Edge	101
Arcade Space	108
The Hallway	113
Landscape Bridge	115

Dockside Edge and Promenade	118
Dockside Infill Structure	120
DESIGN CONCLUSIONS	123
Reflections on the Design Process	124
BIBLIOGRAPHY	125
Passage Type	125
Form	125
Function	125
Technology	125
Retail	125

LIST OF FIGURES

Figures 1,2:	1
Site: London, showing the location of the Docklands	
Site: London, showing the extent of the Thames down river	
Figure 3:	3
Passage Vivienne, Paris	
Figures 4,5,6,7:	5
1881, Leadenhall Market, London, UK, Horace Jones	
Figures 8,9,10:	7
Diagram of a the Mall - Internally focused and contextually oblivious.	
Diagrams of the Passage as building and infill in an urban environment.	
Figure 11:	8
Diagram of a the Mall - one block is taken up by a mall and parking.	
Figure 12:	10
Diagrams showing the elements of a Passage in plan.	
Figures 13,14:	11
Diagram showing the Passage Irregularity.	
Diagram showing the zones of a Passage Path.	
Figure 15:	12
Diagrams showing the Shop, Active, and Passive Activity Zones.	
Figure 16:	14
Diagrams showing the Bay Organization Types.	
Figure 17:	15
Diagrams showing Terminus Types.	
Figure 18:	17
Diagrams showing the Bay Organization Types.	
Figure 19:	18
Diagrams showing Irregular Connection Types.	
Figure 20:	19
Sketch of a Passage Space.	
Figure 21:	21
Chart showing an assortment of Passages and their respective widths.	
Figure 22-45:	22-44
Precedent Photographs.	
Figure 45:	45
View from DLR Train Station out to Westferry Drive.	
Figure 46:	46
Image of the central tower in Canary Wharf, taken from Cabot Square.	
Figure 47:	51
Images showing the site from far away to close up.	
Figures 47:	55
Historical Maps Thumbnails	
Figure 48:	57
Historical Map 1740.	
Figure 49:	58
Historical Maps: 1797 Plan, 1799 Plan, 1802 Plan.	
Figures 50,51:	59
Historical Maps: 1822 Plan, 1841 Plan	
Figure 52:	60
Historical Maps: 1881 Plan, 1881 Plan Enlarged	
Figure 53:	61
Historical Maps: 1910 Plan, West India and Millwall Docks	
Figure 54:	62
Historical Maps: 1938 Plan, West India and Millwall Docks	
Figure 55:	63
Historical Maps: 1973 Plan, West India and Millwall Docks	
Figure 56:	64
Historical Maps: 1981 Plan, Isle of Dogs Masterplan DBZ	
Figure 57:	65

Detail of Context Designs: Signpost at Canary Wharf, Tree Grille, Wrought Iron Gate, Lamp post Base.	
Figure 58:	66
Wrought Iron Gate, and detail of Gate.	
Figure 59:	67
Figure 60:	68
Images showing the views in and to the Docklands Light Rail Services, the above grade train system in place before Jubilee Line.	
Figure 61:	69
Images of the site showing the technology of glass roof experience of emerging from the ground. This is the termination of the Jubilee Line Axis on Axis which Dock Edge will respond to.	
Figure 62:	70
Images showing Heron Quays, a low density development on the south side of middle dock, that is contrasted with the walking conditions on the other side of the dock at the base of a high-rise building.	
Figure 63:	71
Images of the site showing the technology of glass roof experience of emerging from the ground. This is the termination of the Jubilee Line Axis on Axis which Dock Edge will respond to.	
Figure 64:	72
Images of the site showing the potential of the site, and the visual relationship between the upper level and the lower level promenades.	
Figure 65:	73
Images of the site showing the proximity to the skyline of London, and views from the riverside walkway to the edge of the site. The red Heron Quays buildings are scheduled for replacement.	
Figure 66:	74
Images of the site showing the dogleg of Middle Dock and the discontinuity of the dockside promenade. The view from the parking lot along the Jubilee line axis towards the DLR train service over the water.	
Figure 67:	75
Image of the site showing current buildings scheduled for replacement, and the current lack of commercial use on the dockside promenade. The bottom corner of the right most building is currently occupied by a doctor's office.	
Figure 68 :	76
Anticipated Development Sites, Middle Dock, Canary Wharf, London.	
Figures 69,70,71:	77
Perspective: North Quay	
Perspective: North Quay view from water	
Plan: North Quay	
Figures 72, 73, 74:	78
Aerial perspective of Columbus tower	
Elevation of tower, Plan showing floor layout	
Figures 75,76,77:	79
Perspective of Heron Quays West, site plan and drainage plans.	
Figures 78, 79, 80:	80
Perspective of pedestrian footbridge, Longitudinal and Transverse Sections.	
Figures 81, 82, 83:	81
Street view of Park Place South, Site Location Plan, and Elevation.	
Figures 84, 85, 86:	82
Street view of Landmark Marsh Wall, Site Plan, and Context Plan.	
Figures 87, 88:	83
Yacht Elevation, South Dock location plan.	
Figure 89:	84
Pompidou Center Courtyard Roof, Paris.	
Diagrams showing site, design application phases	
Diagrams showing connection types	
Figure 92,93:	90
Connection Type Diagrams	
Perspective: Entry to the Edge from the River Ferry Service.	
Figure 94:	91

Perspective: View of Dock Edge Design.	
Figure 95, 96:	93
5 Tower Type Diagrams	
Parti Sketch 1	
Figure 97, 98:	94
Parti Sketch 2	
Parti Sketch 3	
Figure 99, 100:	95
Parti Sketch 4	
Parti Sketch 5	
Figure 101:	96
Diagram of site responses	
Figures 102,103:	97
Plan, and Diagram of site responses	
Figure 104:	98
Diagrams of site responses	
Figures 105, 106:	99
Figures 107-9:	100
Figures 110, 111, 112:	101
Diagrams: Riverside Edge, Diagrams of site responses,	
Perspective: Nighttime view of Proposed Riverside South Project	
Perspective: Revised Nighttime view to include Passage	
Figure 113:	102
Perspective: View of Riverside South Proposal from the Thames	
Perspective: Revised Proposal with Passage in place	
Figure 114:	103
Perspective: Entry to the Edge from the River Ferry Service.	
Figure 115, 116, 117:	104
Elevation: Single bay facing the Thames	
Section: Through Node	
Elevation: Process elevation in front of towers	
Figure 118:	105
Diagram: Arcade Roof Covering Options	
Figure 119,120:	106
Facade: Frame and Filler	
Figure 121, 122, 123:	107
Facade: Frame and Filler	
Figure 124,125:	108
Diagrams: Main Arcade, #2 The Arcade	
Figure 126:	110
Perspective: View of Rotunda Edge Node on the Thames Promenade	
Details of perspective	
Figure 127:	111
Perspective: View into Main Arcade Space.	
Figure 128:	112
Perspective: Entry to the Main Arcade from the Towers.	
Figure 129,130	113
Diagrams: Main Arcade, #3 Hallway	
Figure 131:	114
Perspective: View in Hallway between Bridge and Arcade.	
Figure 132, 133:	115
Diagrams: Main Arcade, #4 Bridge	
Figure 134,135:	116
Diagrams: Bridge Connection Types	
Perspective: View on Landscape Bridge towards the Middle Dock.	
Figure 136:	117
Perspective: View from Landscape Bridge through towers.	
Figures 137, 138:	118
Diagrams: Riverside Edge, Diagrams of site responses,	
Figures 139, 140:	119

Diagrams: Responding to Axis, Entering Dock Dogleg.	
Perspective: View from Dock Edge out over Middle Dock.	
Figures 141, 142, 143:	120
Elevation: One bay of Adaptive Infill.	
Plan: Dock Edge Plan	
Section: Shows level transition between upper and lower levels	
Figure 144,145:	121
Elevation and Section: Showing the placement of structure in the dock. The two side wings rely on cantilever from the structure. Cross bracing and other structure can be hidden below dock level.	
Figure 146:	122
Vasari Corridor: Axon of the space, enlargements of the axon.	
Figure 147:	123
View on Mackenzie Walk	

INTRODUCTION



Figures 1,2:
Site: London, showing the location of the Docklands
Site: London, showing the extent of the Thames down river
[Google Earth, E. Maeder, 2007]

The Passage Type as a Generator for Urban Connectivity

This thesis captures a study already in progress, a collection of interests brought together in one place. In this place, two assumptions met and tested each other. This first premise is that the Passage Type is a valuable architectural solution and it would be valuable to study. The second premise, is that choosing a site where development is occurring would provide a good source of information and collection of modern issues of architecture.

Convinced that a study with solid origins could withstand a creative process, the end goal was an unplanned event that transpired along the course of study. In the end, the product of this process was an urban design that thought critically about the design process, planning, development, and the role of the modern architect in creating civic spaces. This thesis reflects an inner attitude of a designer to accept responsibility for creating ennobling spaces.

With an attitude and two seed ideas in place, the investigations began. The first investigation was of the Passage Type. This investigation sought to analyze and understand the Passage thoroughly enough to be able to design one. The second investigation was of Canary Wharf, a site in the Docklands of London under heavy pressure to develop. This investigation sought to understand past, present, and future needs of the site. These two investigations form the first two chapters of this document.

Armed with a concrete understanding of the site, and a collection of architectural ideas, the design application began. During the design process, a major shift from designing building to designing space took place, which enabled the design to move ahead. In the end, the design response took a set of skyscrapers under its wing, and gave it a redesigned ground plane that embodied the idea of civic presence. The third chapter, Design Application, shows the process chronologically, offering thoughts, conclusions, and criticisms along the way. The last chapter summarizes the lessons learned on a broader level, and the relevance of this project to both the profession and architectural education.

INVESTIGATION #1:
THE PASSAGE



Figure 3:
Passage Vivienne, Paris
[E. Maeder, 2005]

This chapter focuses on the investigation of the Passage Type, with the goal of designing one. One of the most useful things about a thesis project is how it continually asks the participants to convert information to presentable knowledge. Interest in the Passage type began before this thesis, while studying abroad in Paris, where the type was first developed. This initial interest spurred a casual photographic and sketch based documentation of passages. This was at times deliberate and at other times by chance encounter.

The research into this interest continued its life in an independent study comparing the Passage type to Churches, Crematoria, Libraries and Colonnades through the act of abstraction and transformation. The research gained a new sense of rigor and purpose at the start of this thesis project, primarily through the help of Geist's publication on the Passage. This publication gave a comprehensive view of the passage, showing dimensioned drawings, historical information, and enabled a comparison of scale and urban techniques.

This chapter summarizes relevant thoughts and information about the Passage. A brief overview of its development has been compiled to use the scope of the type over time to lend credence to the authenticity of its existence. This research led to a set of diagrams that describe the Anatomy of a Passage. These diagrams and concepts that aid in the comprehension and design of the type are illustrated in the next section by a set of precedent images taken in person.



The Passage - An Introduction

There are six basic requirements for something to be considered a Passage¹. A Passage must:

1. be reserved for pedestrian traffic,
2. connect between two animated streets by offering a shortcut,
3. be lined by shops,
4. be covered to protect against the weather while letting light in,
5. be lit artificially, and
6. be animated both by light, architecture, and shops.

Of these six defining principles, the last requirement more of an observation of the effect that Passages have on the interaction of people and architecture.

The basic definition of the Passage relies both on architectural and urban concepts. Both the quality of the space and the quality of the connection are directly related to the success of the space.

The working definition for passage in this project took on a less structured approach to enable the project to respond flexibly to different site conditions.

This definition was simply to create a sky lit arcaded space. The term Passage is interchangeable with the words Arcade and Galleria. However simple the working definition, the spirit of the project remained rooted in these six defining principles.

Figures 4,5,6,7:
1881, Leadenhall Market, London, UK, Horace Jones
[E. Maeder, 2008]
1. Moncan (p. 11)

Passage Development

The Passage type first began in Paris, derived from the Market Hall type and the Hotel type. Les Halles before it was dismantled was an originator for the type, and can be compared (less in size and scale, but more in appearance and use) to Covent Garden in London.

Socially, the type was associated with various levels of indecent behavior, no doubt encouraged by the secret fantastic nature of the passage. Walter Benjamin writes about the passage as a dreamworld, and Emile Zola writes about les Halles as the belly of the city of Paris. Passages were incredibly fashionable in their time, and sponsored new activity in the city. The title of flâneur was bestowed on those who had nothing better to do than walk about experiencing the city, seeing and being seen.

Passages out, Malls in

The downfall of the Passage was linked to economic instability. The intimate size and scale of retail could not compete with a decline in urban pedestrian traffic and an increase of large scale retail. Suburbanism and the allure it held away from the city helped spur the physical implications of a suburban lifestyle: unlimited space, distance from industry, sprawl, and individual transportation systems.

Does it make sense to bring back the Passage typology?

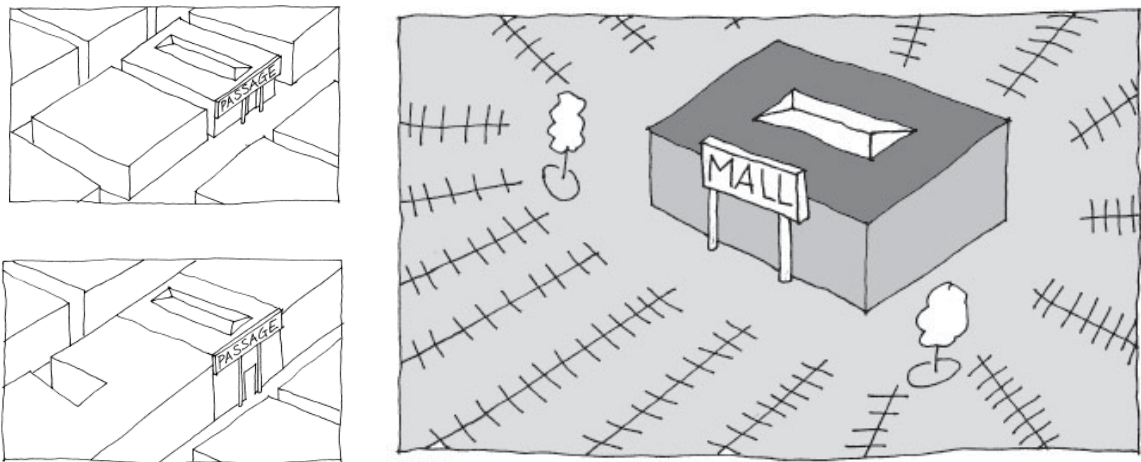
As the profession considers the effects of suburban development, and starts to develop more sustainable environments, old types can be re-introduced into the modern place making effort. Some basic elements of the Passage typology have already been adapted into modern architecture successfully. These include elements such as mixed-use program of housing above retail units, sky lit atrium and lobby spaces, cutting edge advances in glass technology, the modulation of space using elements that convey human scale, and using natural light as a sculptural element in space making.

While elements of the Passage have been fruitful in parts of designs, the use of

the type has been an obscure part of a chapter of architectural history. There are many ways in which learning about the Passage type could form new trends in retail and urban design. The successful passage relies primarily on the strength of pedestrian urban connection, and secondly on architectural size, scale and tectonic quality. It makes the most sense to bring back a passage in an area that is linked to public mass transportation, as that is the only way of ensuring a sufficient density of pedestrian traffic in an otherwise car-driven population.

The Mall - a poor substitute for the Passage

One question linked to the viability of the Passage, is the viability of the Mall type. The Mall is related to the Passage because it replaced the Passage as the common interior shopping space. A comparison between the Mall and Passage shows the mall to have a flippanant attitude towards creating civic urban space. Malls can be considered an unsustainable development type because it relies on the opportunity to create an object surrounded by parking lots. As connectors, malls connect stores to stores, and not streets to streets. They live in denial of context, keeping the user in an internally focused space. The opportunity for a rich architectural interior is lost through the use of inferior



Figures 8,9,10:
Diagram of a the Mall - Internally focused and contextually oblivious.
Diagrams of the Passage as building and infill in an urban environment.
[E. Maeder, 2008]

finishes that poorly mimic the urban environment through paint and drywall.

From an economic standpoint, the mall has made sense for quite some time. The mass production and grouping of utilities into a single place makes a mall easy to manage, market and maintain. For the consumer it brings a variety of options together under one roof, making it convenient to visit many stores. For all these reasons, the mall will continue, but there is no reason that it should not start to reflect better spatial qualities.

One way of rethinking the mall, is by rethinking the owner-renter relationship. By providing centralized logistical support to a group of individual businesses, you can enable smaller operations the same stability of a larger organization. Providing a stable environment for smaller businesses to be competitive can create a more diverse set of experiences within a space like an arcade.

Another implication of a smaller scale development tied to residential development and amenity, is the potential for meaningful community to develop. Placing individuals with common goals together, will lend itself to social stability and support systems developing independently of the physical network of the arcade. The potential of connecting then relates to more than just physical connectivity, but social connectivity as well.

Moving past some of the social issues wrapped in with the development and running of retail, there are several spatial and urban queries that came up when considering the nature of retail in an urban environment. This series of diagrams were made that explored the Mall as an urban block, the Passage as a separate building, and the Passage as infill. Whether the mall can function in an urban context without becoming a passage out of necessity, depends largely upon its location and block configuration.

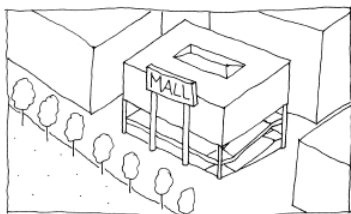


Figure 11:
Diagram of a the Mall - one block is taken up by a mall and parking.
[E. Maeder, 2008]

Civic Space in Commercial Architecture

The passage as a type has been superseded by the Mall, and yet the revival of the passage corrects some of the inherent problems contained in the mall, problems such as suburban sprawl, commercialism, and bland architecture. In an article titled *Suburban Life and Public Space*, Margaret Crawford writes about the future of the mall: “Americans now shop in malls that look like cities and in cities that look like malls. Given the extraordinary flexibility of this form of commercial development, it is difficult to predict the future directions the mall might take. But, if we can learn from the mall’s past, we will be more likely to be able to shape its future” (30). This thesis responds to this challenge by going to the precedent of the mall to look for the answers to issues of scale, community, urban connectivity, and how to live with retail.

The Universal Problem

One of the problems that this thesis responds to is the commercialization of public space. It is a universal problem, because most commercial public space is developed with an eye to make or assist in making money. Civic public spaces exist as amenities to enrich the lives of the people who use them, and usually do not pay for themselves. Town Centers are being substituted for Malls and are designed less for the pursuit of civic interactions, but for the pursuit of revenue. In Kevin Mattson’s article *Antidotes to Sprawl*, he exposes the primary interest of mall design: “Some of the elements that went into the mall were specifically designed to make it less accommodating. People question why there aren’t outdoor park benches or aren’t planters at heights where people can sit, and the reason is because you don’t want to encourage people to just come and hang out. The mall is reserved for use of mall patrons, and if you’re not a mall patron, you’ll be asked to move along” (Mattson, 38).

The solution identified in this thesis is not about making more civic space, instead it is about reintroducing a civil mind-set to the development of commercial space.

The Anatomy of a Passage

The Passage has a design hierarchy: certain elements are required before others can be designed. The design hierarchy of a human is similar: the skeleton comes before muscle and muscle before skin. Five basic design elements of a Passage are the Path, Bay, Terminus, Hierarchy, and Irregularity.

The first element to consider is the Path. The path is the most important element of the Passage. If the destination points of the path are inconsequential, then the fact that there is a path connecting them will be just as meaningless. The Path is generated by a line drawn between two points or destinations. The path is not necessary linear nor physically continuous, but there is a logical connection between all the elements that ties the path together as a complete connection.

The second element of consideration is the Bay.

The Bay is the module of space that determines the cadence of the space. Its dimension has practical and visual implications on the space. The Bay dimension should be able to accommodate retail, while at the same time providing a visual rhythm to the space.

The third element, the terminus, creates both an end to an internal space, and a gateway for arriving in the

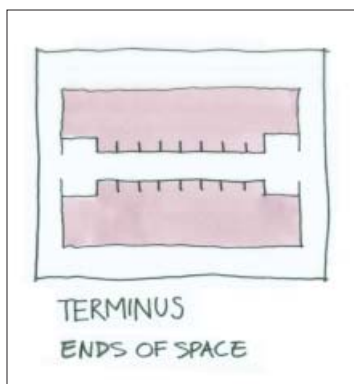
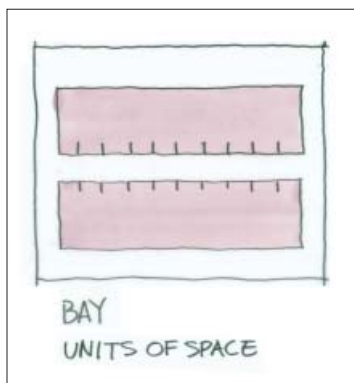
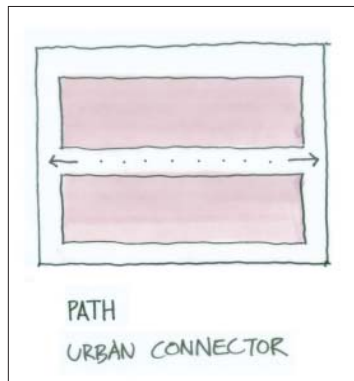
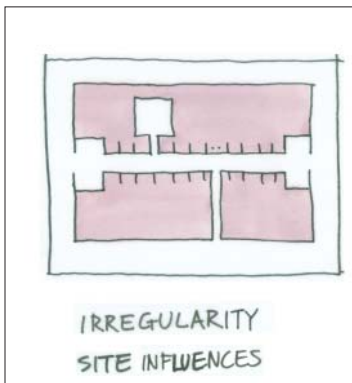
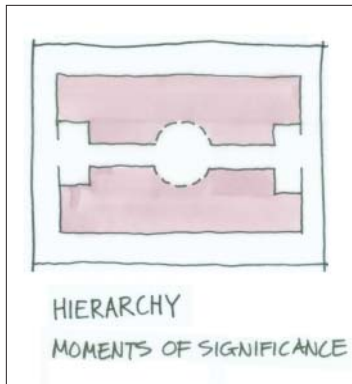


Figure 12:
Diagrams showing the elements of a Passage in plan.
[E. Maeder, 2008]

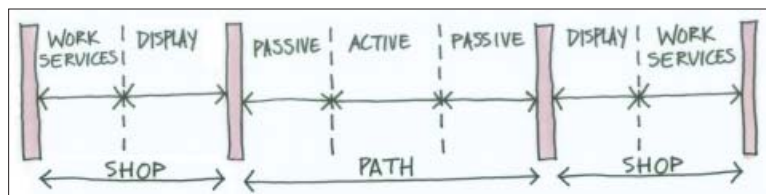


space. It functions as the vestibule of the space, and creates an area of compression, control and transition.

The fourth element of space creation, is the addition of hierarchy. Without hierarchy the repetition of the space lacks rhythm. This creates potential for resting places and occupying the space without passing directly through the space. Hierarchy can occur in many ways. Typically, the Passage hierarchy occurs at the interior intersection of two or more paths, at the center point of a path, or at a change in direction of the path.

The last element of consideration is the influence of irregularity on the ideal form of the Passage. This category focuses on how the Passage is integrated into its environment successfully by responding to circumstance. The Passage can successfully incorporate divergent elements because of the overall strength of the main path.

Each of these five elements generated specific design criteria. These were each secondary layers of consideration within the scope of the project overall.



Figures 13,14:
Diagram showing the Passage Irregularity.
Diagram showing the zones of a Passage Path.
[E. Maeder, 2008]



The Path

The Path generated some comparisons between the path and the notion of a street section. Similar to the way in which a street can have a sectional zoning for cars, sidewalks, bike lanes and setbacks, the Passage can have zones that talk about the programming of the space. This diagram shows one version of the spatial zones, where each zone is defined both architecturally and by its activity.

The two major pedestrian zones of the Path are the passive and active zones. The Shops behind the facades have two zones, one for display and the other for services. Between each of these zones a dashed line represents the interface between zones.

The activities present in each zone are complementary to the different adjacent functions.

For example, the passive zone of the Passage is located next to the display zone of the Shop, so that observation and interactions can occur at the interface between the two. The Passive Zone is on the edge of the central Active Zone of the Passage, as a way of separating out the people passing through from the people who are shopping or waiting in the space.

The Shop is divided into display and work zones.

The display zone is where any interior signage

Figure 15:
Diagrams showing the Shop, Active, and Passive Activity Zones.
[E. Maeder, 2008]

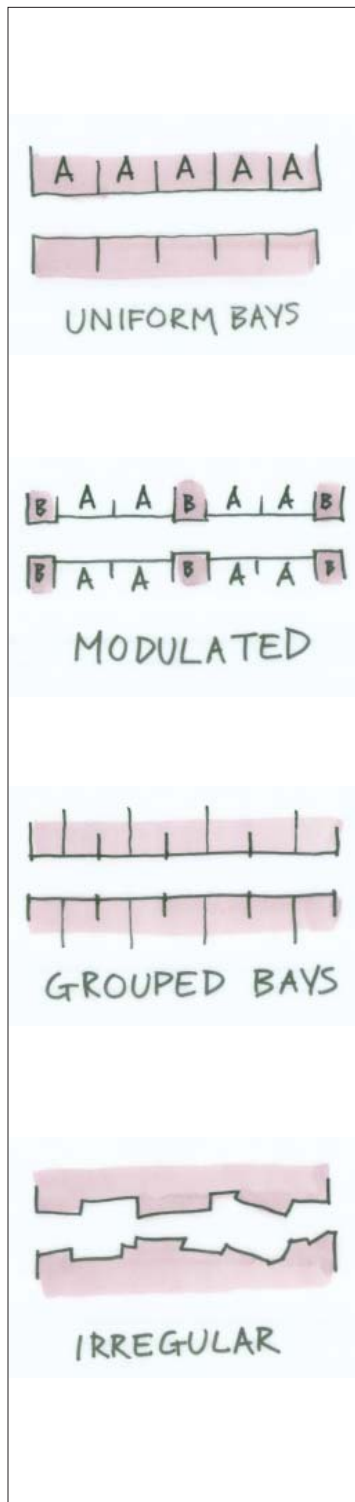
directed outwards should be placed. The relative opacity of this face determines the appearance of openness in the space. If the display zone is completely opaque and the passerby cannot see deeply into the store, the store will seem inaccessible and secretive. This might be useful for the purposes of interior decoration, but for creating a dynamic streetscape it is preferable to have the function of the interior of the store be visible to the streetscape of the Passage. The Passive Zone is an architecturally rich zone, where signage, plant materials, furniture and spill out merchandise from stores may be placed, so as to entice the customer but also as a place for people to sit and watch others passing by. This passive zone should be occupiable by the store, and not regulated as far as possible. It should be moveable, retractable, temporary, or securable at the least. If items are left in the space they should be functional and resistant to vandalism.

While the program of a passage does not vary much from pedestrian activity, retail outlets, and residences, how much each space is allowed to impact on the others has a very important relationship to the character of the spaces created. For example, the design choice of the Passage of this project was to make each zone as interrelated as possible. Thus, views between residential pedestrian traffic and retail traffic is encouraged. Similarly, spill out from stores is encouraged while managed to protect the passage from losing integrity as a good place to walk through.

Bay Organizational Strategies

Within the category of Bay Type, the major question apart from width was organization. The four different types of attitudes towards bay organization is to create uniform bays, modulated bays, grouped bays, or irregular bays.

The uniform bay is a typical strategy, which is the basis of all other bay designs. It simply repeats the same bay module, and derives strength from its uniformity. The second version of this strategy is the modulated bay. This creates hierarchical bays within a base scheme. Hierarchy can be created by intruding



into the setback zone and by varying the bay width.

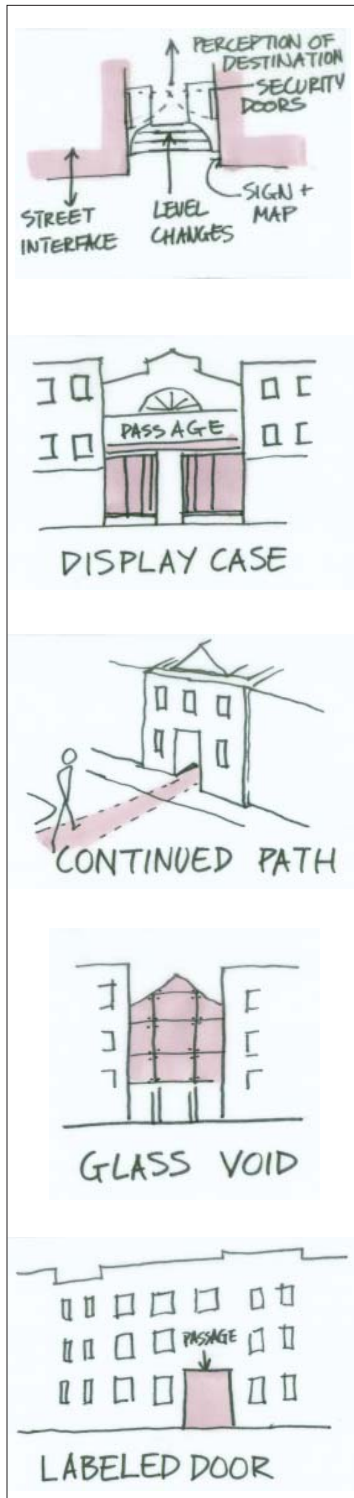
A third bay organization strategy is to create more bays than there are shops. The individual shops might take up more than one bay, but the exterior is still modulated as distinct bays. The first way of interpreting the grouped bay diagram is that the bays should reflect the number of shops behind the facade, and the second is that the bays should belong to the articulation of the passage space and not the stores that are only temporary occupants of the space.

The irregular bay articulated the space of the passage in a non-geometric, non-linear manner, using irregular units. It is hard to regulate, and should be designed either as part of a system, or left to accrete over time.

Terminus

The next category, terminus, relates to the attitude of the terminating features of the passage as gateways, as terminations of interior space, or as terminations of exterior space. The passages studied usually focus on the interior space, but in the earlier arcades, much attention was paid to the openings of the space as entrances. Functionally, the entrance is required to handle level changes, security, signage, branding and marketing. A good passage entrance will also

Figure 16:
Diagrams showing the Bay Organization Types.
[E. Maeder, 2008]



give some anticipation that there is a destination at the other end of the space, or at least that this is not a dead end or private street.

Of the strategies of making the shopping nature of the Passage felt on the street side, the first is to continue the display zone out onto the street as part of the facade. This indicates a continuation of the pedestrian shopping level into the space. An example of this is the Burlington Arcade.

A different strategy is to create a doorway at the end of an already strongly defined path. Thus, the creation of entrance is not as architecturally paramount, as there is no change in direction required, and there is enough momentum and implication of the existence of connection to be functional.

A third strategy is to continue the sky lit space from the main arcade into the facade. This inverts the diagram of continuing the retail, and places the emphasis on the continuation of nature.

A fourth and simpler strategy, often used in adaptive reuse of apartment blocks as Passages, is in the labelling of a doorway. Often, in the context of the situation, the passage cannot be grand enough to remove retail and residential space for marketing, and relies instead on sufficient architectural labels.

Figure 17:
Diagrams showing Terminus Types.
[E. Maeder, 2008]

Hierarchy

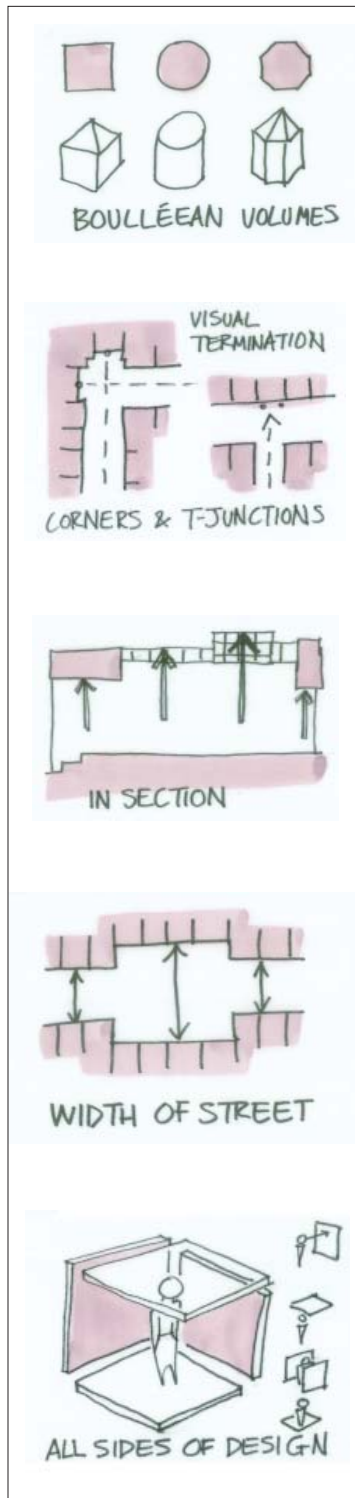
The fourth category of hierarchy is evident in Passages from the grand passages to the smaller passages. The major strategy of creating hierarchy is in the creation of rooms that are a clear expansion in the middle of a path to create nodes. Often these rooms take the form of a pure volumetric form imposed on a linear path.

As mentioned previously, Passage hierarchy occurs at the intersection of two or more paths, at the centerpoint of a path, or at a change in direction of the path. Changes of direction at corners and t-junctions should cause bay modulations to reflect both the conditions of entrance ways and the relationship of the bay terminating the path in either direction.

In section the modulation of the ceiling height and porosity to light can also cause moments of hierarchy to exist. In the situation where there are no rooms created along the length of the passage, this is the next best way of creating a variety of experiences within the length of the path.

The last strategy for creating hierarchy is by varying the width of the interior street. This, combined with sectional moments of darkness can create entirely separate sections within a space. When the width of the passage decreases, it should not attempt to carry with it the same amount of activity and should delete the passive zone before infringing upon the active zone of the space.

These initial strategies for developing hierarchy are the most prevalent. Floor and paving patterns also play a key part not only in the articulation of passive and active zones, but in the reading of individual bays and their presence in the arcade. The emphasis should be on a wholistic design.



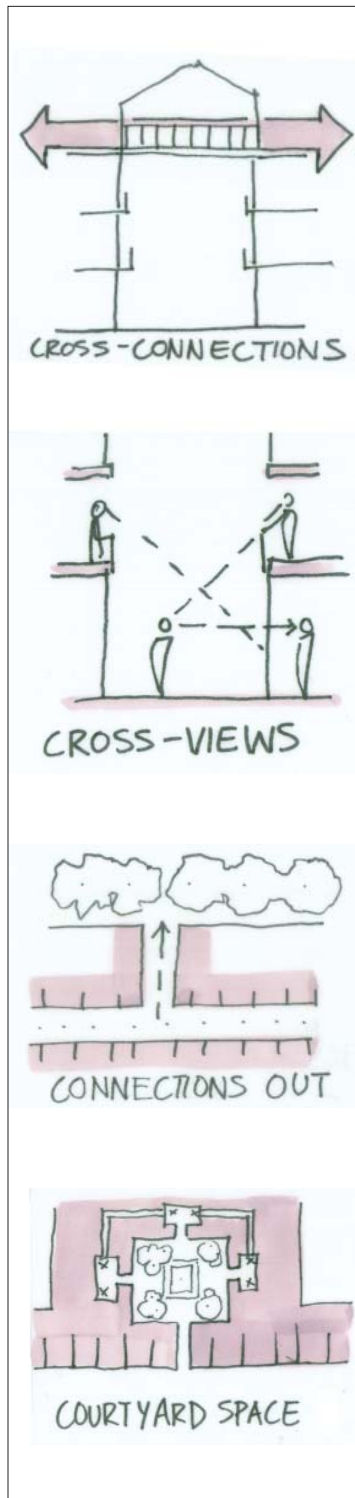
Irregularity

The last category explores irregularities and site influences. More specifically, how the proximity of housing can play a part in the articulation of the Passage. These occur in two categories, connections on the ground plane, and those above the main floor.

One of the issues of making a Passage, is that a great void separates the two distinct zones on all upper levels of the main path. The positive effect of the open space on the ground floor is not so attractive on the upper levels. Therefore, the use of cross connections and catwalks that bridge the gap between the sides can be useful.

Typically, passages do not create an interactive relationship between the upper floors and those below. Instead, the fact of housing is often concealed from those below, as a matter of making the interior street more street-like. For those who live there, a sense of security and privacy is created by this separation. This diagram is of cross-views most often occurs between two retail floors. A new interpretation of the diagram as a visual connection between residential and retail customers may allow for a more civically engaged space. The expression of a residential zone should not be of a private zone, but of a transition or circulation zone that belongs

Figure 18:
Diagrams showing the Bay Organization Types.
[E. Maeder, 2008]



to a more private zone. Furthermore, the security of a more open system has to be even more closely guarded against intrusion.

On the ground floor, minor connections to the exterior can enhance the overall accessibility of the passage for both patrons and service elements.

A variant of connections out, is a connection to a courtyard space. This courtyard is a useful device for organizing the circulation in a residential tower behind the facade.

Figure 19:
Diagrams showing Irregular Connection Types.
[E. Maeder, 2008]

PRECEDENT ANALYSIS:
THE PASSAGE



Figure 20:
Sketch of a Passage Space.
[E. Maeder, 2007]

Precedent Images

Much of the information gained from precedents was contained in the previous “anatomy of a passage” chapter. This chapter focuses mostly on the images and drawings that led to the synthesis of those diagrams. The next few paragraphs discuss the variety of ways in which a Passage responds to context.

Five varieties of how a Passage is created include:

- insertion of a void into an existing building,
- insertion of a void into a set of existing buildings,
- creation de novo, with no previous context,
- covering a space between two existing buildings, and
- creating edge on an existing building.

Precedents help us narrow down a specific set of items of development that help us make decisions about an alternative application or transformation of a design detail or idea. They can be useful at several different scales, and offer different things to a project at different times. These examples are primarily from Paris and London, but include some important images from Milan and the United States.

The diagram on the next page is a summary of passage widths. These were looked up from various sources and combined as a way of seeing what a typical width for a Passage might be. As it turns out, the passage occurs in a variety of street “widths”, with six meters being a common width in the sample set. Another interesting chart to make would be one that compares the ratio of height to width of those spaces. In any case, the wider passages tend to be the tallest and grandest. The numerical comparison of these architectural spaces could be quite informative, but only when related to the experiential quality of the experience. So, for example, measuring the rhythm and modulation of the bay and relating that to the overall ability of the space to be engaging. Within any typology, there are many methods of studying them by comparison. Overall, the exposure to the information is irrelevant unless it is used within a design context.

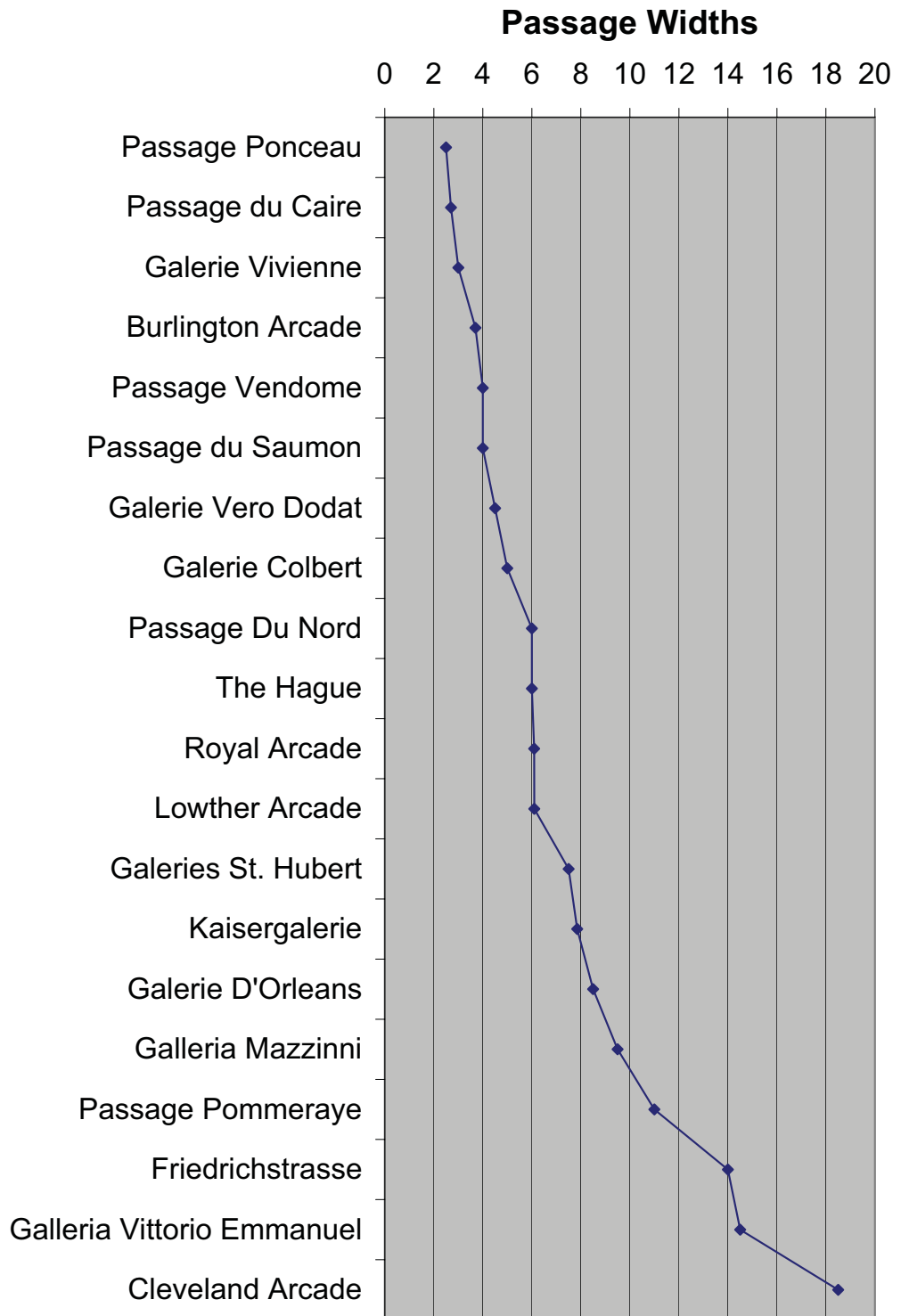


Figure 21:
Chart showing an assortment of Passages and their respective widths.
[E. Maeder, 2008]

Figure 22:
[E. Maeder, 2008]

LEADENHALL MARKET



Figure 23:
[E. Maeder, 2008]

MARKET IN MANCHESTER



Figure 24:
[E. Maeder, 2008]

PRINTWORKS, MANCHESTER

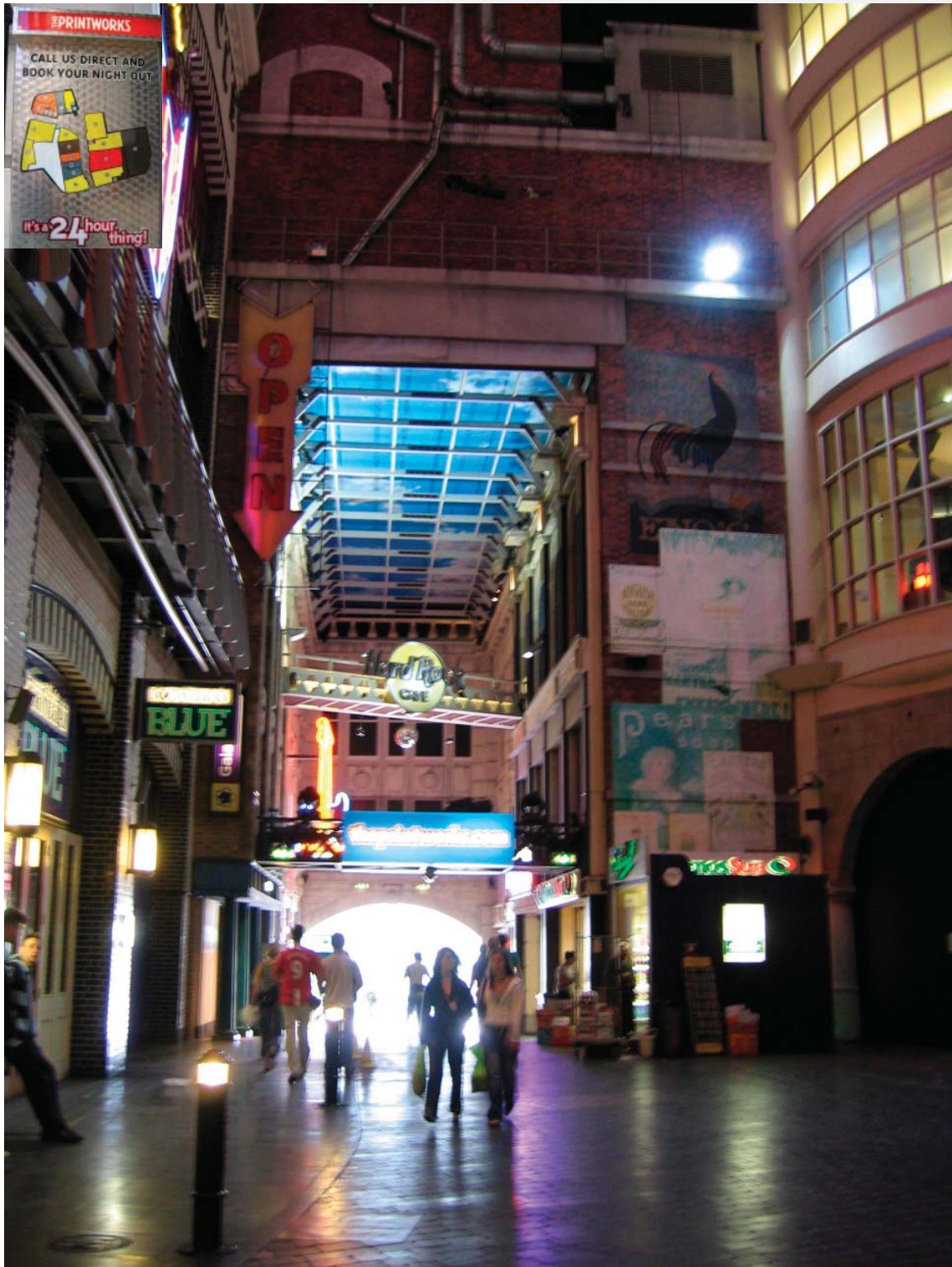


Figure 25:
[E. Maeder, 2008]

HAYS GALLERIA, LONDON



Figure 26:
[E. Maeder, 2008]

PRINCES SQUARE, GLASGOW



Figure 27:
[E. Maeder, 2008]

WAITROSE GROCERY STORE



Figure 28:
[E. Maeder, 2008]

COVENT GARDEN MARKET, LONDON



Figure 29:
[E. Maeder, 2008]

RICARDO BOFILL PASSAGE, PARIS



Figure 30:
[E. Maeder, 2008]

BARTON ARCADE



Figure 31:
[E. Maeder, 2008]

ENTRANCE TO THE BURLINGTON ARCADE



Figure 32:
[E. Maeder, 2008]

BURLINGTON ARCADE, LONDON



Figure 22:
[E. Maeder, 2005]

GALERIE VIVIENNE, PARIS

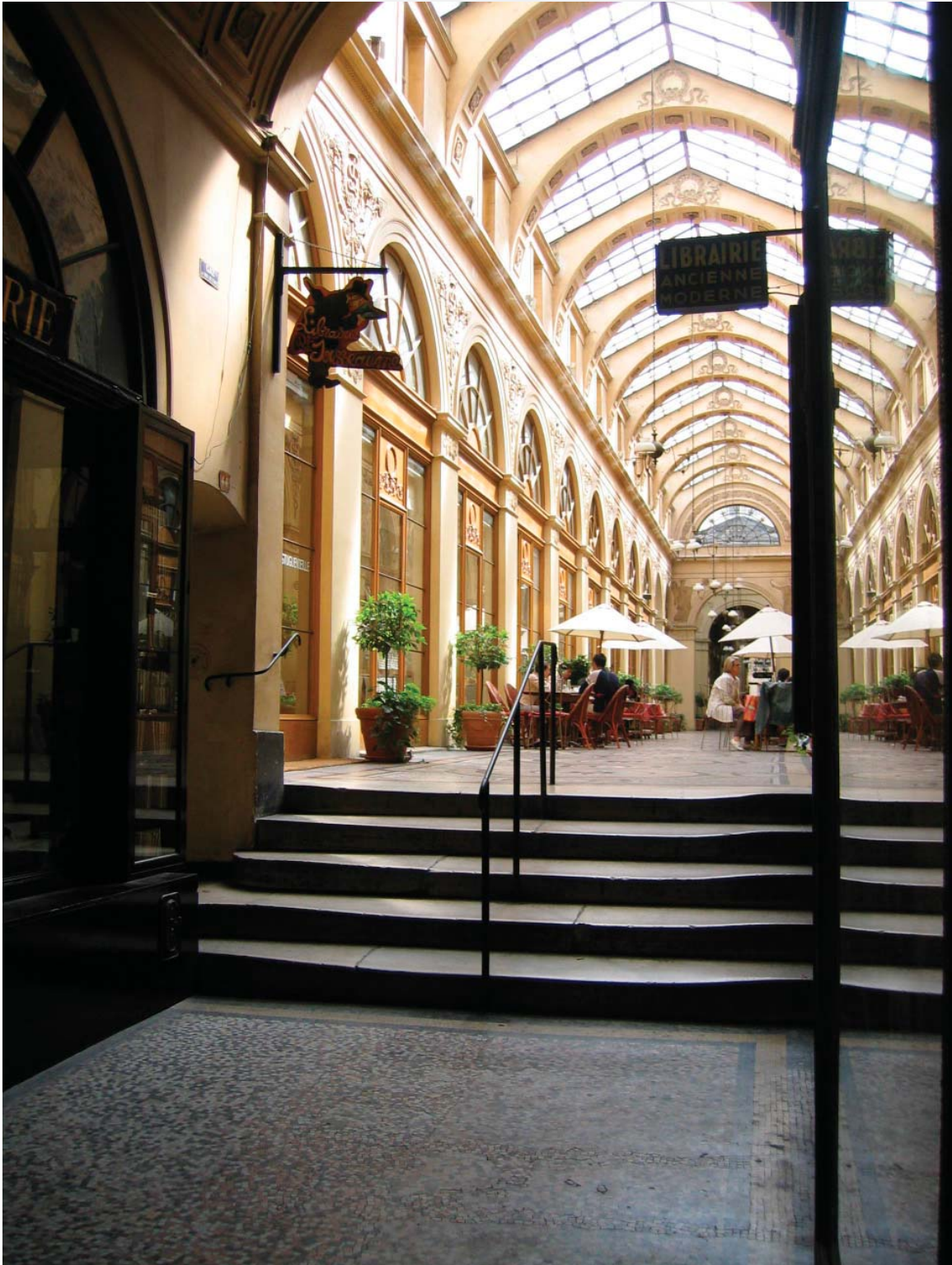


Figure 34:
[E. Maeder, 2008]

PICADILLY ARCADE, LONDON



Figure 35:
[E. Maeder, 2008]

CLARENDON CENTRE, OXFORD



Figure 36:
[E. Maeder, 2008]

ENTRANCE TO THE ROYAL ARCADE, LONDON



Figure 37:
[E. Maeder, 2008]

ROYAL ARCADE, LONDON



Figure 38:
[E. Maeder, 2008]

ROYAL OPERA ARCADE, LONDON



Figure 39:
[Flickr, 2008]

GALLERIA VITTORIO EMMANUEL II, MILAN

Figure 40:
[Clevelandskyscrapers.com, 2008]

CLEVELAND ARCADE, OHIO

Figure 41:
[E. Maeder, 2008]

VICTORIA SHOPPING CENTRE, HARROGATE



Figure 42:
[E. Maeder, 2008]

NATIONAL MUSEUM OF SCOTLAND, EDINBURGH

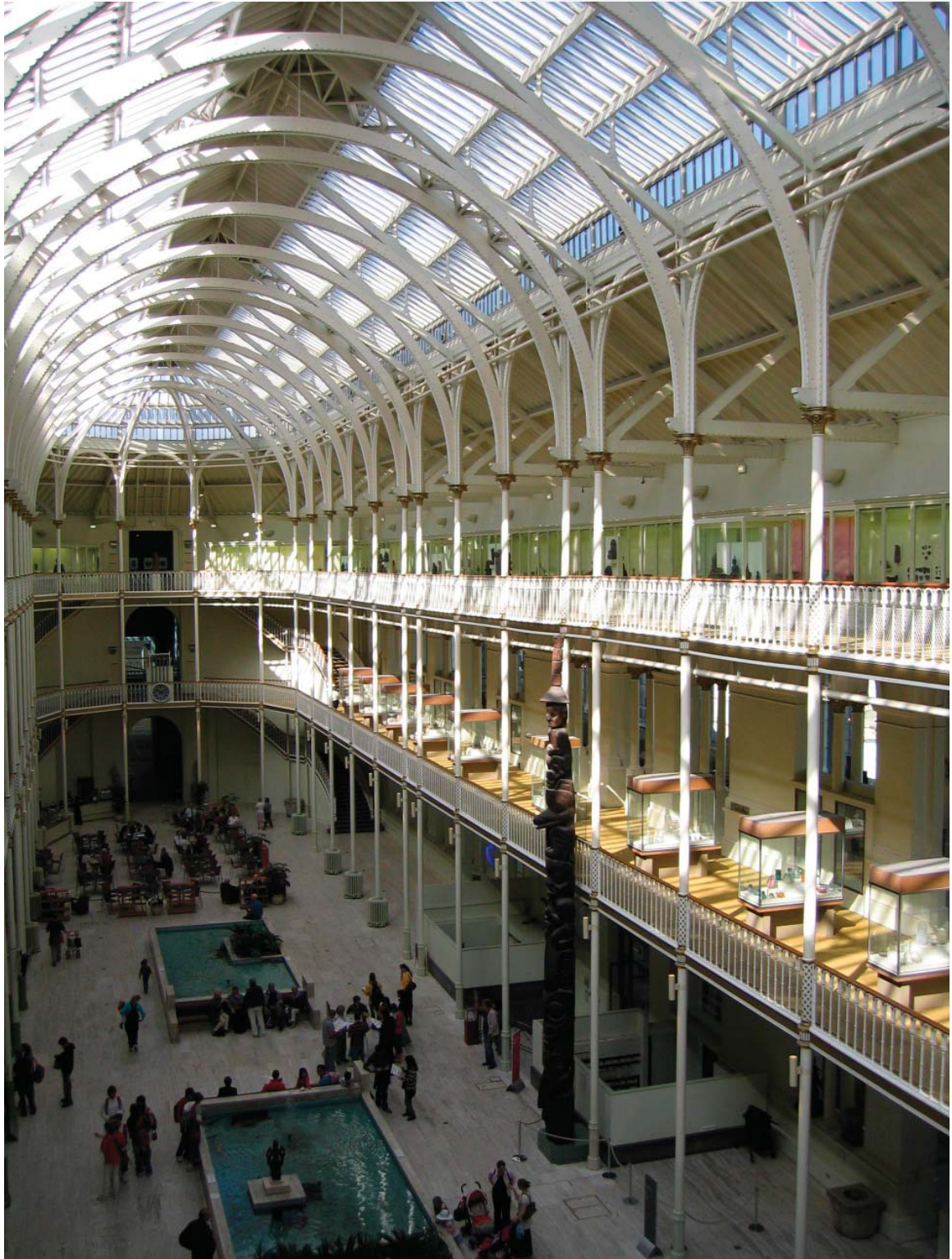


Figure 43:
[E. Maeder, 2008]

LEFTBANK APARTMENTS, MANCHESTER



Figure 44:
[E. Maeder, 2008]

APPLE STORE, LONDON



INVESTIGATION #2: THE SITE



Figure 45:
View from DLR Train Station out to Westferry Drive.
[E. Maeder, 2007]



Goals in Site Investigation

This chapter investigates the second assumption of this thesis, that choosing a site where many architects and developers are already working would provide a good source of interaction with modern issues in architecture and a ready supply of information.

The site chosen that met the criteria is Canary Wharf in the docklands of London. While walking around the docklands area as part of a study abroad program, the potential for using the site for a thesis project was instantly apparent. Documentation was .

What caused the site to be interesting was the contradiction of designed intervention and unplanned results. The area is visibly designed and planned for, which makes the environment highly ordered. At the same time, there is an incoherence on the ground plane that makes a discontinuous experience for the pedestrian. While walking on the main axis of the site, only half of the buildings have an arcade around their base for sheltering pedestrians. The other half of the time, the pedestrian is running in a wind tunnel between covered space. This intriguing contradiction

Figure 46:
Image of the central tower in Canary Wharf, taken from Cabot Square.
[E. Maeder, 2008]

between informed planning and ignorant execution served as a gateway to studying the site for opportunities in remedial architecture.

The information presented in this chapter serves to orient the reader to the site, through a narrative of its past development, present day images, and future planned developments. The strengths, weaknesses, opportunities and threats are analyzed in the end as a way of highlighting the importance of specific observations.

The discussion that results from this site analysis is one about the role of urban adaptation. Usually adaptive reuse occurs on buildings that have fallen out of use. This project proposes a way of giving new value to a building still under construction in order to satisfy higher urban design standards.

Introduction to Site Relevance - Canary Wharf

Consumerism and the need for Realism

Part of the basic animal experience is the need to travel. In the past, a hunter-gatherer would travel to a fertile hunting place. In the present day we make similar voyages of necessity to the workplace and to shops. The shop and the workplace being the modern hunting ground for the “earner-spender”. What separates us from animals in the human experience is that we can ascribe value and meaning to the act of travelling; thus we participate in journeys and pilgrimages. Paths can generate meaning over time and use.

Not only have the speed, awareness, and quality of travel changed significantly, but the culture of the traveller has influenced the way we shape our paths in life. The path in our consumer culture is shaped, not by the end-user, but the person who makes money off your passing. The consumer culture is defined by a group of individuals who have enough income to spend money on upgrading their lifestyles, and a group of people dedicated to offering services to the consumer. The built environment is developed to harness the economic power of the traveller, making money off the consumer. It has two roles for the non-consumer: convert or reject them.

Conversion is attempted by advertising, entertainment, and catering to physical needs to prolong the experience and interaction time. Rejection is accomplished by providing little stability in the physical environment to sustain a non-consumer. Places to sit, water fountains, public restrooms, landscaping, fresh air, and other such services are not offered readily. The non-paying customer is hustled out of the way and economic viability takes over.

The problem with this situation is that it does not take into account the human spirit. While we may function in an economic system, we still value nobility of the human spirit and experience. The values of honesty, sincerity, and truth have not gone out of fashion, rather the civic mind has been bullied out of design because of economic viability. When the individual is treated like a number, the

response is as a number: with disrespect and uncaring. When the individual is given the truth with sincerity, the individual is more inclined to respond in kind. It is the difference between a sincere relationship with a business and a forced relationship.

Businesses have now tried to re-humanize themselves, with real people at the end of customer service, real people in their advertising, and real stories that people can connect to personally. Businesses that connect with real customer needs with real service are surviving because the consumer has so many options that they can afford to get served elsewhere if the service is bad.

The key element missing in a successful business strategy for reaching out to the individual is a positive interaction through the built environment. This thesis proposes an alternative to the architecture of dishonesty, numbers and negligence, by advocating a built environment that meets the needs of the people it serves with honesty and integrity.

The Formation of Honest Architecture

The way that architecture mediates the consumer interface can be made more honest by considering the factors of program, environment and creativity. When designing for an honest program, one asks the question “Who works there and what is their attitude to the consumer?”. This question is used to identify meaningful elements of the program. When there is a housing component to a commercial architecture the commerce is forced to deal with the 24/7 presence of people who care about place. Likewise, civic and non-commercial functions soften the edge of commercial development by sponsoring people-friendly services.

When designing for an honest environment, one asks the question “How does the architecture respond to the needs of the individual?”. The role of the sublime is not completely removed from the vocabulary of architecture, as it has a place in the human experience. Brutalism and harshness is less desirable, as

it accomplishes far less in making a positive memory of place. The individual should not be psychologically dominated by the environment, but enter into a partnership with place.

When designing for an honesty of spirit, one asks the question “Does the creativity of the design inspire a nobility of spirit?”. When a design is obviously flat, cheap, and not considered in a project, the result has little redeeming value. Creativity and design intent should be integral to a project, interacting honestly with the end-user. One designer who conveys his intentions clearly is James Dyson, whose products are directed to specific problem solutions.

Even the terms we use to define architecture “form, function and technology” are lacking in the usefulness of the words “delight, commodity, and firmness” that give us a sense of how the built environment should be, instead of clinically describing its existence. This thesis is about putting delight into form, creating commodity in program, and firmness within technology.

Testing the Concepts

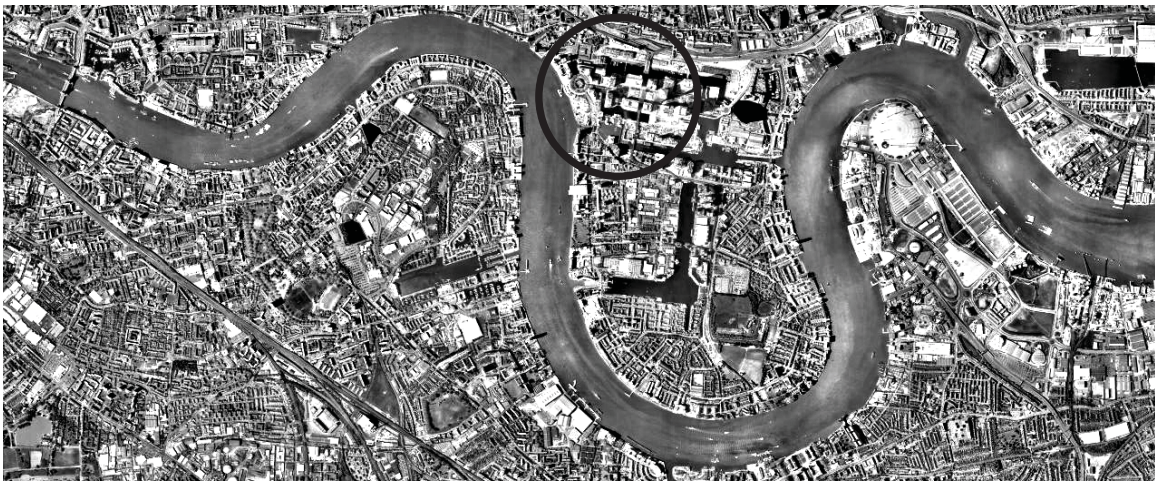
To test the parameters in a discussion like this, one needs to find two ideals. One is the paragon of consumerism and the other is the honest retail space. This discussion relates to the idea that there are universal problems in consumer architecture. As a model of an honest retail space, the passage type is identified and discussed in relation to the mall type in previous chapters.

The site of Canary Wharf is relevant to this discussion, because its development is driven completely by its economic viability and the prospect of making money. The issues discussed in the design application section would likely apply to many other commercially driven developments, where the principles of creating civic space can aid a commercial space in being human at the same time.

Site Location: Isle of Dogs, East of Central London



Site Location: Isle of Dogs - Canary Wharf



Site Location: between the Thames and Middle Dock

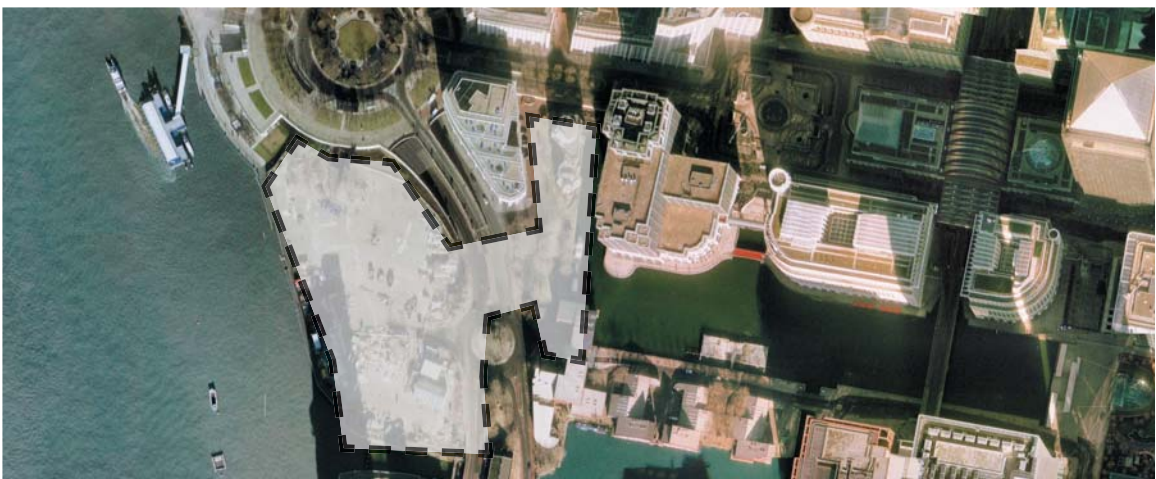


Figure 47:
Images showing the site from far away to close up.
[Google Earth, E. Maeder, 2008]

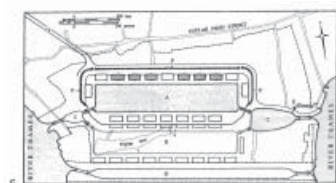
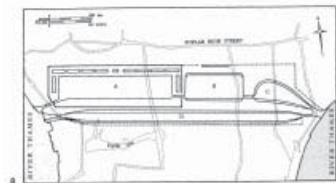


Site History - Past to Present

The Survey of London has a thorough documentation of the Isle of Dogs over time. By looking at these maps and recorded history, we can see where the Isle of Dogs started and how it has changed over time. We can identify how it has dealt with physical site constraints and social concerns, all of which play a part in its current design.

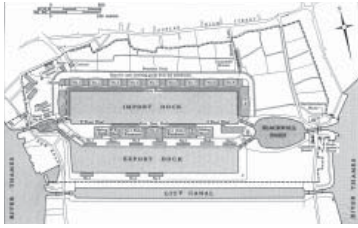
1740 - The Isle of Dogs

The Isle of Dogs in 1740, is largely undeveloped. Due to the marshy and swampy nature of the land, a wall had to be erected along the edge of the Isle with sluice gates to let out the extra water. The primary form of industry on the island, was in the form of windmills used to grind corn and oil seeds. The marshy nature of the land led and the type of industry explains why there are names such as “marsh wall” and “mill wall” in current use. It is interesting that even then, the land was disconnected, mostly useful for industry, and of questionable value for agrarian purposes. Noticeable geographic features such as “the cut” and Limehouse Hole, are places the geographically lend themselves to the creation of docks, and are exploited for those purposes in future developments.

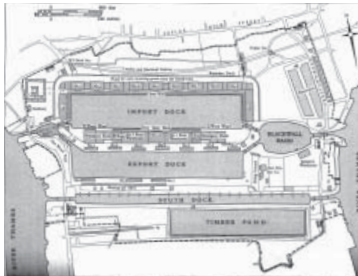


1797, 1799, 1802 - Industrialization and Planning

With the advent of new technologies, and a need for places to build and experiment with new



manufacturing methods, the Isle of Dogs started to experience a new speed of development. The plans shown for the development of dock warehouses show the planning process in action. Similar to the ideas in subsequent plans, there is a linear organization that faces the water activity, and mirrors the East-West connective link of Poplar High Street.

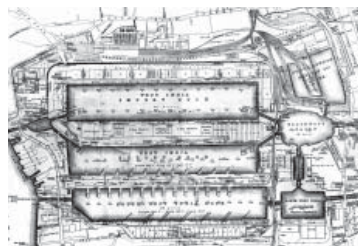


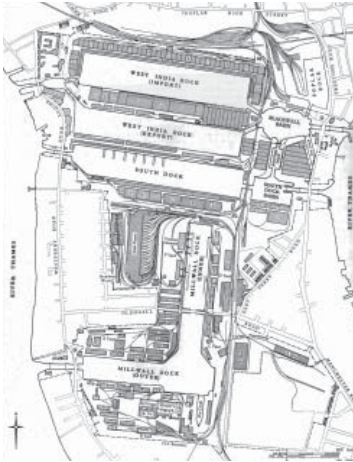
1822, 1841- Import Export Docks

By this time, the docks and their associated warehouses are manifest on the site. The overall industrial functionality of the site is established, but the social and transportation problems continue. By 1942 the Canon workshops are built, one of the few that remain from its time. Most of the industrial buildings were steel, and easier to replace than to reuse. Much of the housing that was built has also disappeared because of uneven settlement on the marshy land.

1881 - Docklands

The docklands pre 1880, had developed in industry while neglecting amenity. The Survey of London says "Physical isolation and lack of amenities (there was, for instance, no cinema except very briefly) produced an insular community. Free of the worst social problems of poor districts, the Island acquired an environment blackened by industrial pollution yet unrelieved by social color. Those parts of it not actively repellent were of stupefying drabness".





The sense of drabness, isolation and melancholy, although part of the past and history of the place, have lent an underlying note to the concept of the place that seeps through the layers of time to color the present atmosphere. It is as if the docklands have always struggled to exist and claim their reason for being, but have never quite made it even after being completely overhauled. All attempts at attracting a stable residential population of middle class professionals failed in this era.



1910, 1938, 1973 - Docklands

The three maps from 1910 through 1973 show the rise and fall of industry in the docklands area. By 1973, it is clear by the removal of several warehouses for the creation of parking lots that the decline of industry has taken hold. Due to the low land values, this enabled developers to step in and purchase large tracts of land for the purposes of redevelopment.



1981 - LDDC and the Enterprise Zone

Following the economic decline of the Docklands, the London Docklands Development Corporation (LDDC) formed in 1981. Their goal was to rapidly develop the docklands while retaining quality of design (Survey of London XLIV p687). The Enterprise Zone is outlined in grey on the plan of 1981, showing the emphasis on the primary core of the development between the North and Middle Docks.



A design guide for the Isle of Dogs was published in 1982, which regulated height, massing and materials. The planning efforts at Canary Wharf were based on the thesis that “conventional land-use planning was inhibiting the entrepreneurial flair and investment necessary to regenerate Britain’s run-down industrial and inner-city areas”. Thus, they had no concept of what the economy would bring to the area and the volume that the infrastructure would have to support, and could not draw the money required for significant infrastructure improvements.

After a series of attempts at development, the project for Canary Wharf started to flounder. The main problem with the area being the lack of connectivity to the mainland, a problem that can be traced back in time several centuries. The development of the area faced two other problems, the resentment of out-priced local residents, and the social rejection of the concept that Canary Wharf could rival London’s central financial district.

After much discussion of a Jubilee line extension, and the cost it would require, the plans for its development were shot down because of the speculation involved. The result was a cheaper and

Figures 47:
Historical Maps Thumbnails
[Survey of London]

faster to construct solution in the form of the Docklands Light Rail system. From 1986 the docklands light rail was under construction and opened with limited service in 1991.

The net result of the delay in available public transportation was that the development went through several downturns. Olympia and York, an American company headed by the Reichmann brothers came in to resurrect the project. After a while, their efforts landed them and all their partners in bankruptcy. The main reason for their failure was due to their lack of understanding of the social context of the project that inflamed transportation issues central to the success of the scheme. Reliable public funding for transportation upgrades and a reluctance to decentralize from London stalled construction.

After much political wrangling between the developers and the Government a compromise was reached. Private companies would unconditionally back the construction of an extension to the Jubilee line. The Government partnership would then contribute financially to the development of the docklands and place some of their offices there to lend social credence to the area. Finally, Canary Wharf was able to catch a much needed reprieve from development troubles. Today, since the completion of the Jubilee line, new developments have been made possible. This sudden influx of interest by new developers and architects has brought money and new ideas about planning to the area. While the idea of Canary Wharf is in flux, the development of the area will continue to be piecemeal and pulled by new ideas in directions that may not reflect a cohesive masterplan.

The response of this project to the history of the area is to acknowledge the important role that public transportation plays in the past and future success of the development of this area. The site will also rely on an inclusion of decent housing, and a program for social relief that is in charge of focusing on the social and cultural needs of the docklands. This is in an effort to sidestep the issues of the past where industrialization completely neglected the human aspect of the docklands and created a drab, meaningless place.

1740

Figure 48:
Historical Map 1740.
[Survey Of London XLIV, 199X]

1802

Figure 49:
Historical Maps: 1797 Plan, 1799 Plan, 1802 Plan.
[Blue Survey Book, 199X]

1822, 1841

Figures 50,51:
Historical Maps: 1822 Plan, 1841 Plan
[Blue Survey Book, 199X]

1881

Figure 52:
Historical Maps: 1881 Plan, 1881 Plan Enlarged
[Blue Survey Book, 199X]

1910

Figure 53:
Historical Maps: 1910 Plan, West India and Millwall Docks
[Blue Survey Book, 199X]

1938

Figure 54:
Historical Maps: 1938 Plan, West India and Millwall Docks
[Blue Survey Book, 199X]

1973

Figure 55:
Historical Maps: 1973 Plan, West India and Millwall Docks
[Blue Survey Book, 199X]

1981

Figure 56:
Historical Maps: 1981 Plan, Isle of Dogs Masterplan DBZ
[Blue Survey Book, 199X]



Humanizing Elements

Part of the development effort at Canary Wharf was put into the humanization of the docklands, specifically in making the pedestrian realm a more interesting and designed space. Despite the effort put into the exterior landscape, the sheer size and scale of the buildings dwarfs the good intentions of the development.

These are some examples of the type of pedestrian scape improvements that occurred. “Decorative features include the gates and railings at Westferry Circus by Giuseppe Lund, symbolizing the seasons (Plate 144d), further railings on Wren Landing by Bruce McLean, and a computer-controlled fountain in Cabot Square by Bruce Chaix, capable of performing 42 different water ‘dances’ (Plate 153a). The ventilator shafts from the underground car parks are encased in sculpted cast-glass panels by Jeff Bell. Most of the street furniture, such as telephone kiosks, bus shelters, bicycle stands, lamp-posts and rubbish bins were specially designed by Skidmore, Owings & Merrill, but the benches are by Wales & Wales” P710.

During my initial site visit, a pair of wrought iron gates made an impression on me, and I remember being fascinated by them. This episode of design

Figure 57:
Detail of Context Designs: Signpost at Canary Wharf, Tree Grille,
Wrought Iron Gate, Lamp post Base.
[E Maeder, 2008]



stood out apart from the rest of the context, and made me curious about how they came to be there. To enhance the overall interest and character of the pedestrian landscape, it is important to encourage and support the public arts programs so that the public atmosphere can develop a sense of intrigue and interest, instead of the detached corporate feeling that is generally the default reading of the spaces there.



Figure 58:
Wrought Iron Gate, and detail of Gate.
[E Maeder, 2008]

Key Places at Canary Wharf

The previous section of this chapter talked about the historical development of the site. The next few pages are a set of images that describe the existing context of Canary Wharf, organized by location. Themes present throughout the site images include the use of glass and steel technology, the presence of modern landscaping elements, a variety of existing pathway experiences and in general an awareness of the super scale presence of buildings. The identification of themes and issues will be brought up in the development of site application as a response to more specific issues.

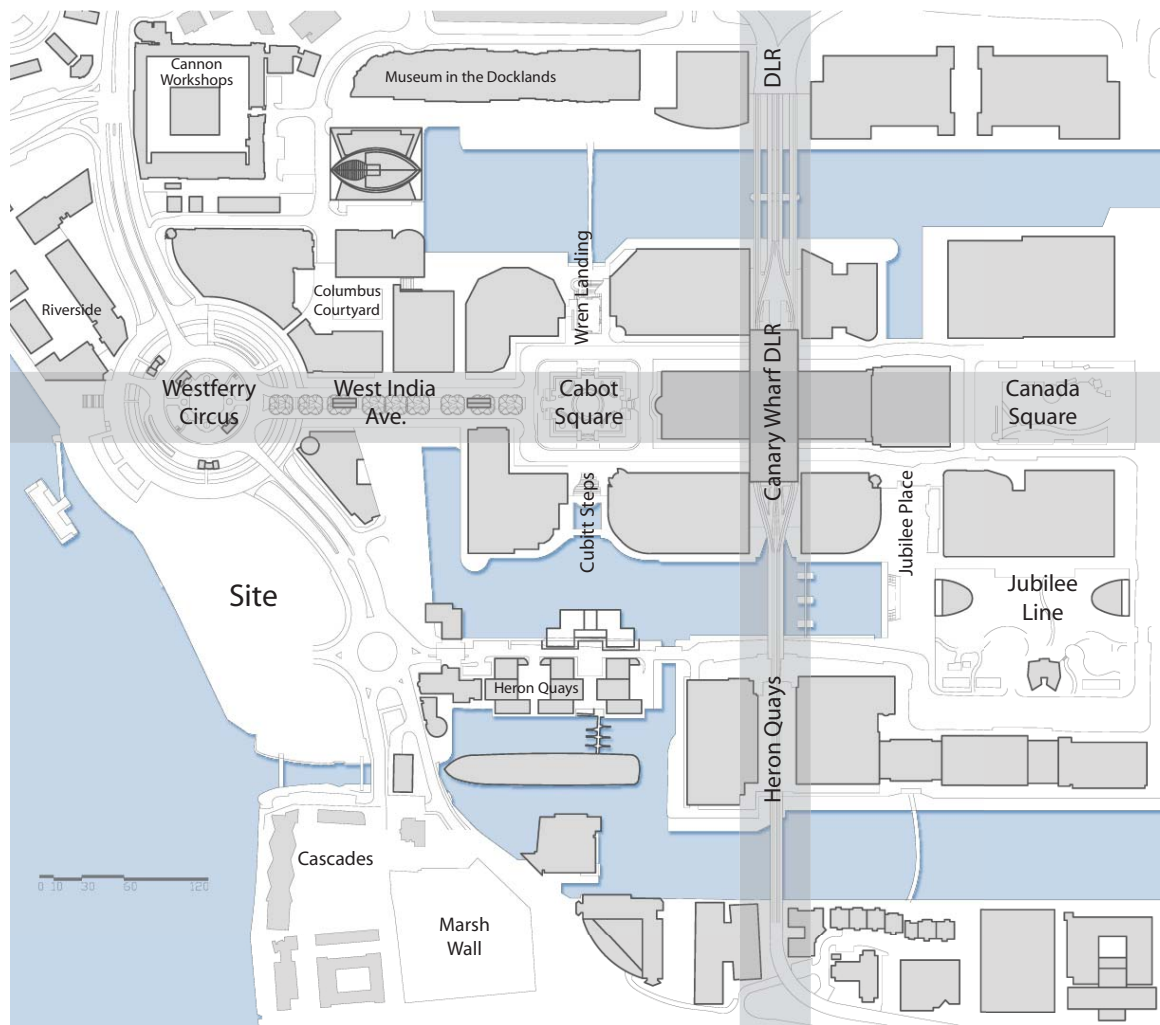


Figure 59:
Plan showing existing buildings around the site. The main axis from Westferry Circus to Canada Square, is surrounded and supported by individual buildings alternating with landscaped level transition elements (Cubitt steps, Wren landing, Jubilee Place, etc).
[E. Maeder, 2008]

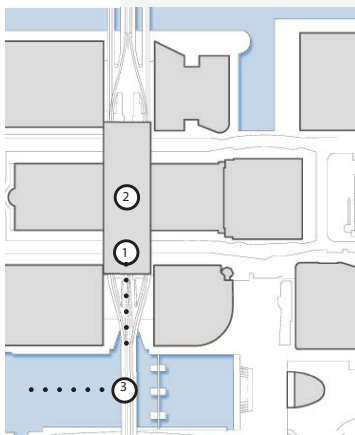
Inside the
Canary Wharf
DLR Station



View from the
DLR bridge
crossing Middle
Dock to the
Dock Edge and
London in the
distance.



View on the
DLR platform



DLR Line



Figure 60:
Images showing the views in and to the Docklands Light Rail Services,
the above grade train system in place before Jubilee Line.
[E. Maeder, 2007, 2008]

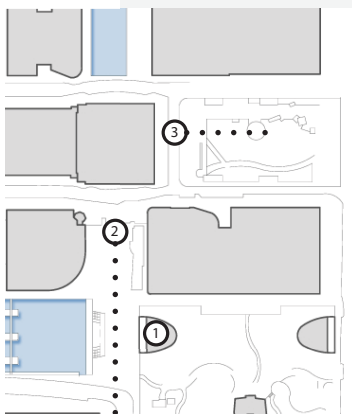
Emerging from
inside the
Canary Wharf
Jubilee Line
Station



Jubilee Place
outside the
Canary Wharf
Jubilee line
Station by
Norman Foster



View on the
DLR platform



Jubilee Line



Figure 61:
Images of the site showing the technology of glass roof experience of
emerging from the ground. This is the termination of the Jubilee Line
Axis on Axis which Dock Edge will respond to.
[E. Maeder, 2007]

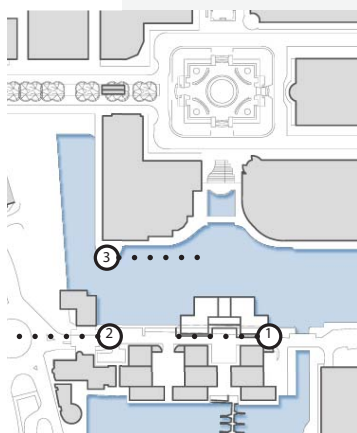
Edge of the Heron Quays Docks Edge, a tree lined promenade against the docks with old, low density buildings.



Car controlled secure entrance to Heron Quays and the South Drive along the docks.



Mackenzie Walk, across from HQ.



Heron Quays



Figure 62:
Images showing Heron Quays, a low density development on the south side of middle dock, that is contrasted with the walking conditions on the other side of the dock at the base of a high-rise building.
[E. Maeder, 2007]

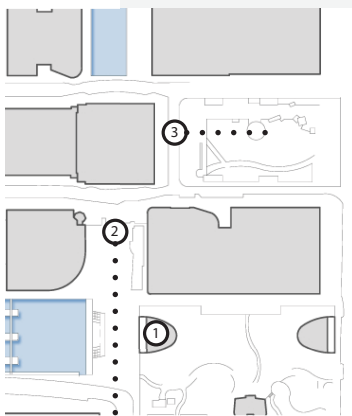
Inside the Columbus Courtyard with art on display, and Westferry Arcade directly across.



Lobby Space, Canada Square



Colonnade, Canada Square



Canada Square

Figure 63:
Images of the site showing the technology of glass roof experience of emerging from the ground. This is the termination of the Jubilee Line Axis on Axis which Dock Edge will respond to.
[E. Maeder, 2007]

Existing site in pre-construction phase, ready for development.



View from Upper Level to Thames Promenade



Westferry Circus Edge



Thames Edge

Figure 64:
Images of the site showing the potential of the site, and the visual relationship between the upper level and the lower level promenades. [E. Maeder, 2007]



Figure 65:
 Images of the site showing the proximity to the skyline of London, and
 views from the riverside walkway to the edge of the site. The red Heron
 Quays buildings are scheduled for replacement.
 [E. Maeder, 2007]



Figure 66:
Images of the site showing the dogleg of Middle Dock and the discontinuity of the dockside promenade. The view from the parking lot along the Jubilee line axis towards the DLR train service over the water. [E. Maeder, 2007]

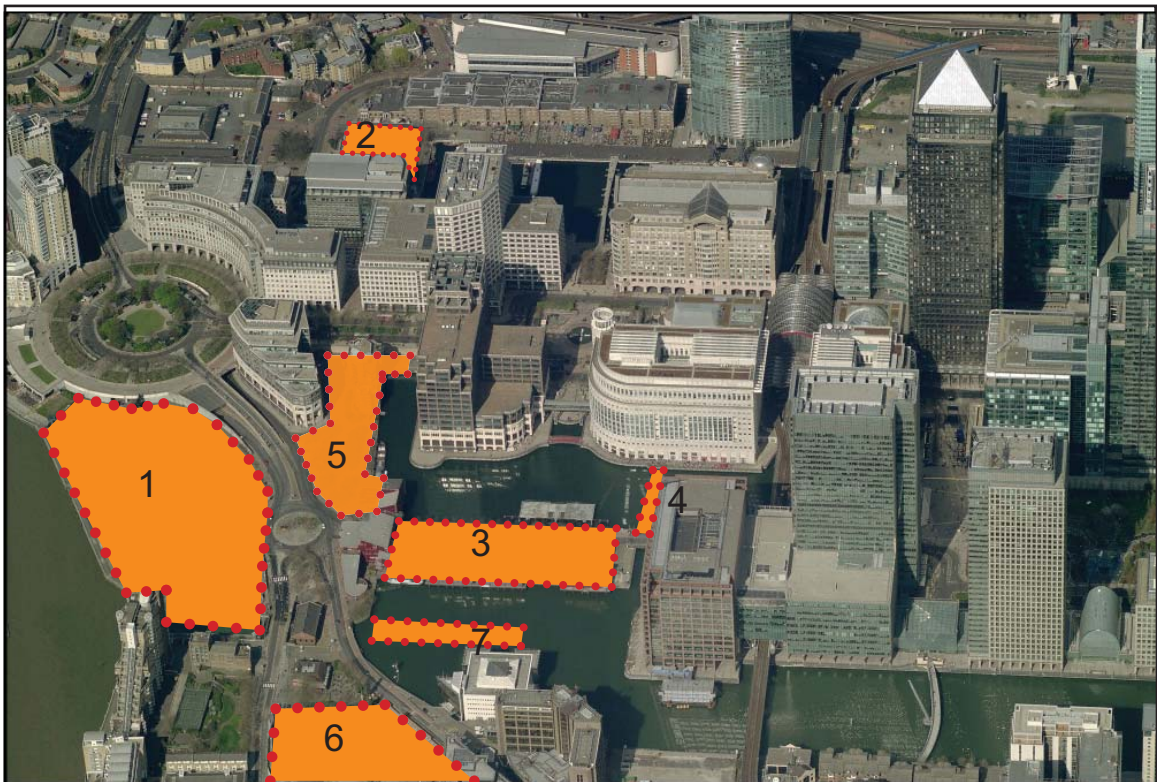


Figure 67:
Image of the site showing current buildings scheduled for replacement,
and the current lack of commercial use on the dockside promenade.
The bottom corner of the right most building is currently occupied by a
doctor's office.
[E. Maeder, 2007]

Site Future - Current Development Pressures Anticipated Development

There are several significant future developments planned in Canary Wharf in the general proximity of the site, including one located on half of the site.

These developments include several skyscrapers, an office building, a pedestrian footbridge and a yacht. The next few pages will provide an overview of the anticipated developments, the information contained in the available drawings and analysis of their potential impact on the site.



Sites:

1. North Quay/Riverside South
2. Columbus Tower
3. Heron Quays West
4. Pedestrian Footbridge
5. 1 Park Place
6. Marsh Wall - Landmark
7. Harbour Quay Hotel Yacht

Figure 68 :
Anticipated Development Sites, Middle Dock, Canary Wharf, London.
LocalLive Aerial Image. Area Action Plan - Isle of Dogs. Tower Hamlets.

1 North Quay

Architect: Cesar Pelli

Location: South of Westferry Circus and West of Westferry Road.

Project Description: Two skyscrapers and a link at 44, 38 and 18 floors respectively. The mixed-use scheme will feature a station for the Crossrail development and a bridge designed by Will Alsop. The intended station will need a concrete box 475 metres long installed in a shaft dug 30 metres below water level.

Figures 69.70,71:

Perspective: North Quay

Perspective: North Quay view from water

Plan: North Quay

Tower Hamlets

2 Columbus Tower

Architect: DMWR Architects

Location: North of the West India Docks

Project Description: "This 100,000 square metre development at West India Quay on the Isle of Dogs incorporates a mix of office, hotel and residential uses together with a variety of retail, leisure and civic amenities in a 63 storey landmark high-rise tower" (www.dmwr.co.uk).

Figures 72, 73, 74:

Aerial perspective of Columbus tower

Elevation of tower, Plan showing floor layout

3 Heron Quays West

Architect: Richard Rogers

Location: Current Heron Quays Site with red angular buildings.

Project Description: a twin tower design with the higher tower at 214m and the smaller tower at 156m. 40 and 29 floors. (skyscrapercity.com).

Figures 75,76,77:

Perspective of Heron Quays West, site plan and drainage plans.

4 Pedestrian Footbridge

Architect: Adamson Associates Architects (www.adamson-associates.com/)

Location: Crossing middle dock about halfway between the west Jubilee line station entrance and the east edge of the thesis site.

Project Description: This bridge is a simple bridge connecting across the water.

Figures 78, 79, 80:

Perspective of pedestrian footbridge, Longitudinal and Transverse Sections.

5 Park Place Office Building

ID57 1 Park Place Office Building

Architect: Michael Squire and Partners

Location: the Thesis Site - 1 Park Place

Project Description: Office

Figures 81, 82, 83:
Street view of Park Place South, Site Location Plan, and Elevation.

6 Landmark, Marsh Wall

Architect: Squire and Partners

Location: South of North Quay by Marshwall

Project Description: 40 storey building, 27 storeys, and two 8 storey buildings. 691 dwellings anticipated, and 3,107 square metres of retail, office and community uses at lower ground, ground, and level 1 and 6.

Figures 84, 85, 86:
Street view of Landmark Marsh Wall, Site Plan, and Context Plan.

7 Harbour Quay Hotel Yacht, West India Dock South

Architect: Vosper Thornycroft (UK) Ltd.

Location: South Dock Mooring

Project Description: Harbour Quay Hotels Limited is creating a Luxury Yacht permanently moored by Marsh Wall in the South Dock. Its primary function is as a hotel with accompanying mixed uses including business function rooms, restaurants, bars, health spa, retail units, together with pontoons and lay-by access off Marsh Wall with set down area in front of the impounding station.

Figures 87, 88:
Yacht Elevation, South Dock location plan.

APPLICATION:
A DESIGNED
CONNECTION

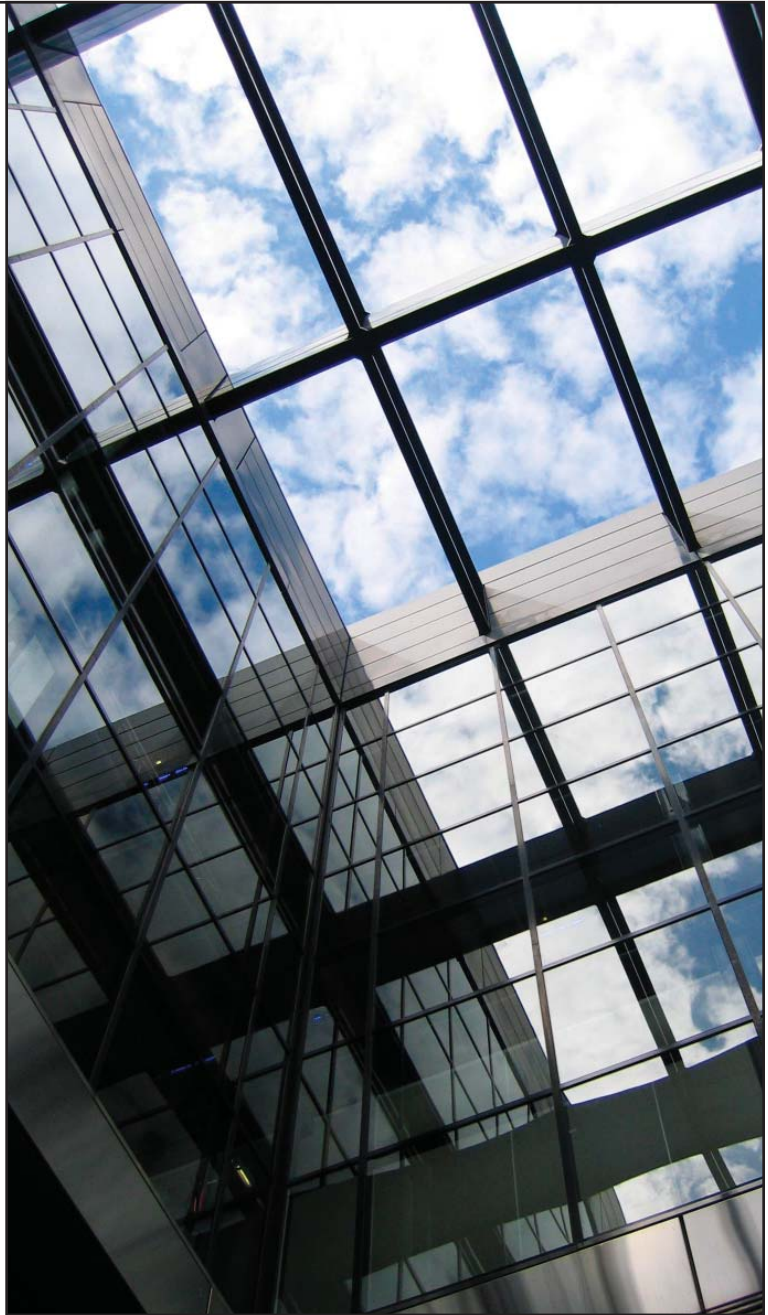


Figure 89:
Pompidou Center Courtyard Roof, Paris.
[E. Maeder, 2005]

Introduction to Application

This chapter focuses on the design process, and the application of decisions made throughout the project.

The first section outlines the project as it developed after each major design committee meeting.

The next two sections discuss the analysis of connection types and tower types. Both of these deal with the fundamental issues of developing in a site like Canary Wharf - building tall buildings and connecting the ground plane.

These analysis paragraphs demonstrate the need to focus on the creation of public civic space.

This change in philosophy results in a direct transformation of the design process.

The last section shows the application of a civically minded design process. The five major elements of the project are diagrammed and explained graphically, with the relevant criticism and relation to the design process.



Site: Meeting 1, 2



Site: Meeting 3



Riverside South



Intervention

Design Process - Meetings

The design process began on the east-most portion of the site. During the process the site was expanded as the idea of connecting changed. This chapter outlines the major application of decisions reached throughout the semester based on each of the five meetings. It also focuses on the lessons learned by each step of the process.

Meeting 1. At the first meeting, the goal was to present most of the ideas and information to be able to discuss goals and possible direction for the project. Ideas that proved useful in subsequent phases included the idea of connecting to the Ferry and Tube systems. Many questions about the site were raised, especially regarding the role of the traffic circle. Much effort was expended in graphically explaining and conveying site information concisely.

Meeting 2. The second meeting questioned the additive nature of the design process to this point. The design methodology shifted after this point to the process described in the “anatomy of a passage” section. This shift enabled the focus of the design to focus on the creation of path instead of the creation of building. At this meeting, the site analysis yielded several important diagrams about connection typology, but remained distant from the design development because of changing site parameters.

Meeting 3. The third meeting yielded a decision about the site parameters, enabling concrete design development to occur. The option chosen for



Intervention



Riverside Edge



Main Arcade Section



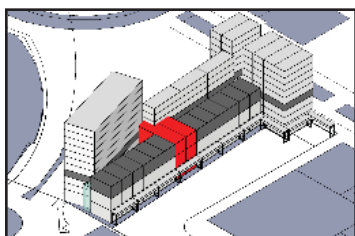
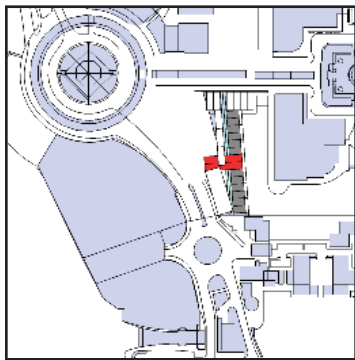
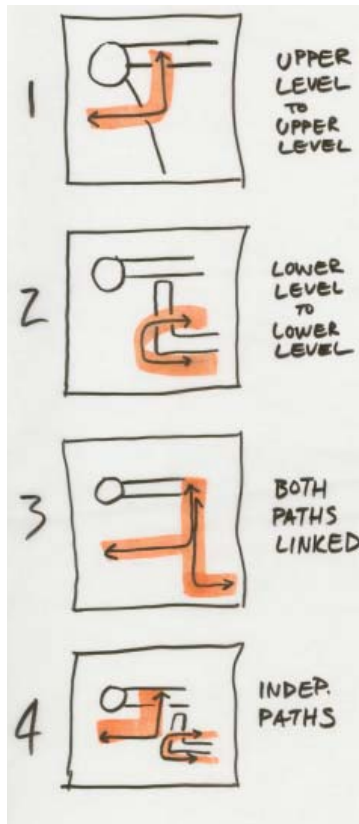
Dockside Promenade

considering the site, was not to accept current site conditions, but to accept future planned buildings. This allowed the site to exist in a theoretical context. This also relies on the judgment of the local planning board instead of arbitrary site decisions. The project therefore responds critically what the planning board considers appropriate for future development. After this point, the design methodology for the passage was developed as described in the section on “Passage Anatomy”.

Meeting 4. After deciding upon the site context, this eliminated the need for designing a building program in lieu of Riverside South. The scope of development reconfigures the ground plane surrounding the skyscrapers without redesigning the core functions of the two towers. Furthermore, the addition of the passage aims to add civic functionality to the towers. This meeting also discussed the potential character and civic intent of the connector.

Meeting 5. The fifth meeting was a public review of the work in progress. This yielded questions about the role of the architect as site planner, questions about character and style in urban design planning.

Figures 90: Continued from Page 86
Diagrams showing site, design application phases
[E. Maeder, 2007]



Connection Type Analysis

The basic method of choosing the correct path, was to list the potential connections in any one place.

There were four types of connection to consider:

connecting the upper level to itself, connecting the lower level to itself, connecting both upper and lower levels with a linked path, and connecting both levels with independent paths. The value of each path connection strategy was considered independently.

The upper path is important for continuing the retail experience and all the primary building entrances are on this level. The lower path is important because it connects one with the water on the site. It is the biggest amenity and attraction that makes the site unique. To deny access to the lower level creates an inharmonious tension. The third type of path

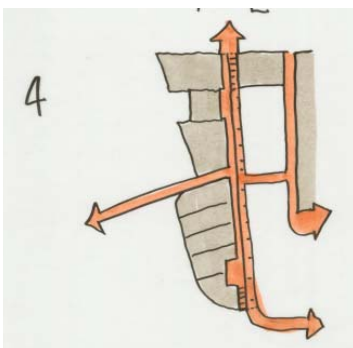
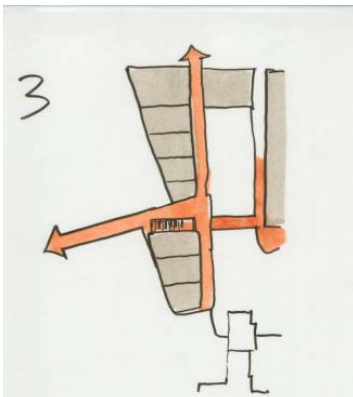
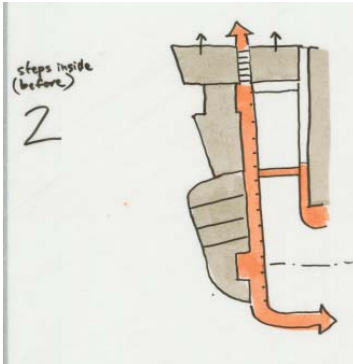
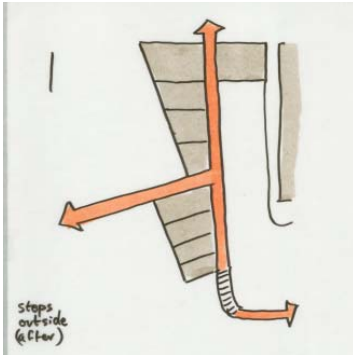
connects both levels, and provides access between the upper and lower paths. This provides the best kind of connection, but it relies heavily upon space consuming infrastructure of stairs, ramps, and landscape elements. The fourth kind of connection

denies the vertical link between the two paths, and defers the responsibility of connection to private

properties. The decision to create linked paths fell alongside the part of this thesis that values public

responsibility and which holds the creation of a civic space above the interests of private development.

For each space, diagrams were created that reflected these options based on Parti. This set of diagrams shows the four connection types based on an Edge



parti for the initial site. The first diagram shows the upper level connection, and how it terminates in three directions. The second diagram shows the lower level connection and how it can cross the river and move up a level through a building. The third diagram shows the confusion of attempting to related both paths to each other. The fourth diagram shows the clarity achieved by separating the two paths, but is less graceful overall.

The second set of diagrams shows the same connection types based on a central path. Eventually, this scheme for the dogleg was abandoned, when the East-West connection became the primary concern.

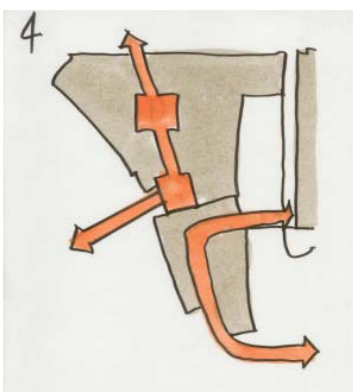
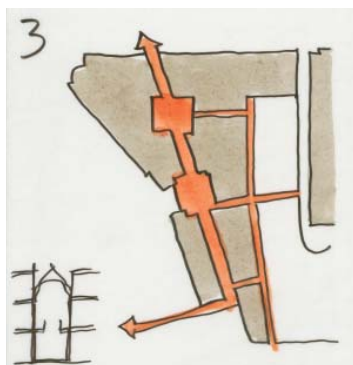
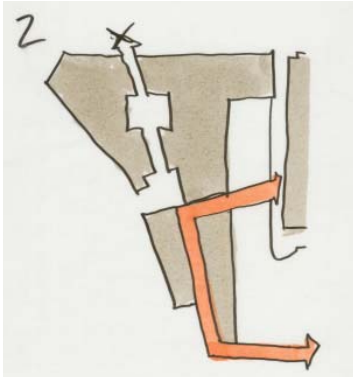
Between the edge and the central parti, the edge parti would have been the winner, because it paid more attention to the dockside, and enabled larger stores to be accommodated.

The final design for this part of the project treated the lower level promenade as the most prominent connection. The presence of the passage

transformed the buildings around the site into responding to the docks, and enabled the outdoor environment to regain a sense of place. The transformation of the passage was placed over the dock as an adaptation of the existing context.

The goal of an 'adaptive re-use' passage, was to

Figures 91: Continued from Page 88
Diagrams showing connection types
[E. Maeder, 2008]



emphasize how the passage as a notion of glass covered space could rely on existing buildings in a corporate context much like they relied on adapting hotels at the birth of the Passage typology.

This picture shows a preliminary sketch for the insertion of a Passage into the dogleg space of the site. The biggest issue is deciding how to enter the space on the lower level. Other issues include the height of the structure, transparency, and degree of structural density and points of attachment.

This picture shows an initial design drawing from when the passage was still being designed as a building with extra holes, instead of a path space with extra cover. The interesting point is that the urban connectivity goals for the space remained the same while the design method shifted. The urban goals for



Figure 92,93:
Connection Type Diagrams
Perspective: Entry to the Edge from the River Ferry Service.
[E. Maeder, 2008]

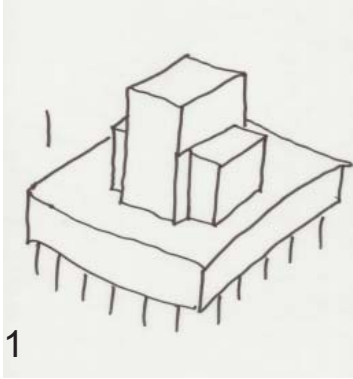
this space were to terminate the axis while completing the dockside circuit. This was concrete evidence that the issues of the site remained the same, while the method and style of execution could reflect independent stylistic goals while still achieving an urban goal. This encouraged the design process to focus more on solving the abstract ideals of an urban solution, and illustrating them with physical examples of what could be designed as a solution.

Application: Dock Edge Dogleg

The final application in this area of the site does three things: it connects the dockside promenade circuit, it creates a structure that clarifies the interstitial as its own space, and it transitions between the lower and upper levels of the site through the landscape. The precedent used for this space is Hays Galleria.



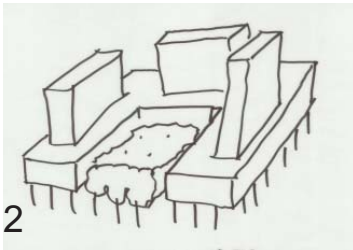
Figure 94:
Perspective: View of Dock Edge Design.
[E. Maeder, 2008]



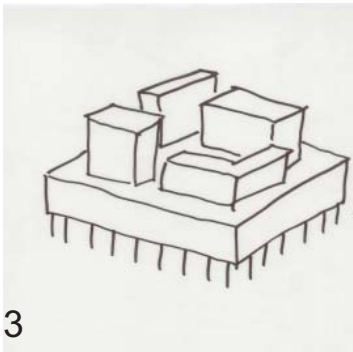
Tower Type Analysis

Analysis & Diagrams

The expansion of the site to include Thames frontage brought up some questions that are typical for design in London on waterfront property. The role of facade as a generator of image, and how a passage can contrast, enhance, or blend with its context.

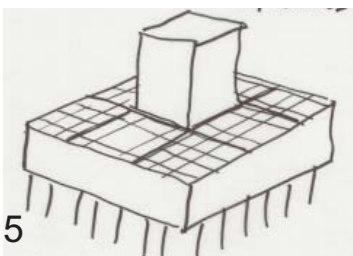
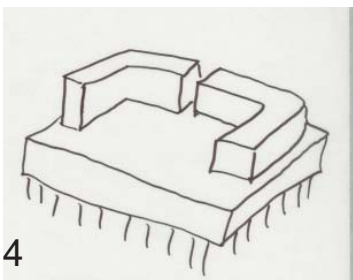


Before the acceptance of the two towers as site context, there was a more abstract discussion about the nature of what could be placed on such a large site. This developed the discussion of how to develop density on such a large site, and the role of a background building.



Process

These five diagrams illustrate ideas about the massing and attitudes of building and field. The first diagram illustrates the elements at play: a tower, a ground plane, and a structure. The general principle of towers being a repetitive core ascending vertically, while the ground floor responds to the needs at the base of the tower. The second diagram illustrates the erosion of the ground floor to make way for a landscaped element. This could be water, earth, hardscape, or a different composition altogether, but it reads as a void in the plane. The third diagram illustrates multiple towers floating in a field that create a courtyard or secondary space by their composition. The fourth diagram reflects a directional principle, creating an edge by using the towers as walls. The



fifth diagram illustrates a concept of a gridded ground plane, in which the services are arranged as a network of streets and squares. The purpose of this diagram is to show the ground plane as the ordering principle, upon which the tower form is modular and directly related to the structural grid of the base.

With these different characterizations of the tower, the site of Riverside South was investigated. The following images are some of the explorations.

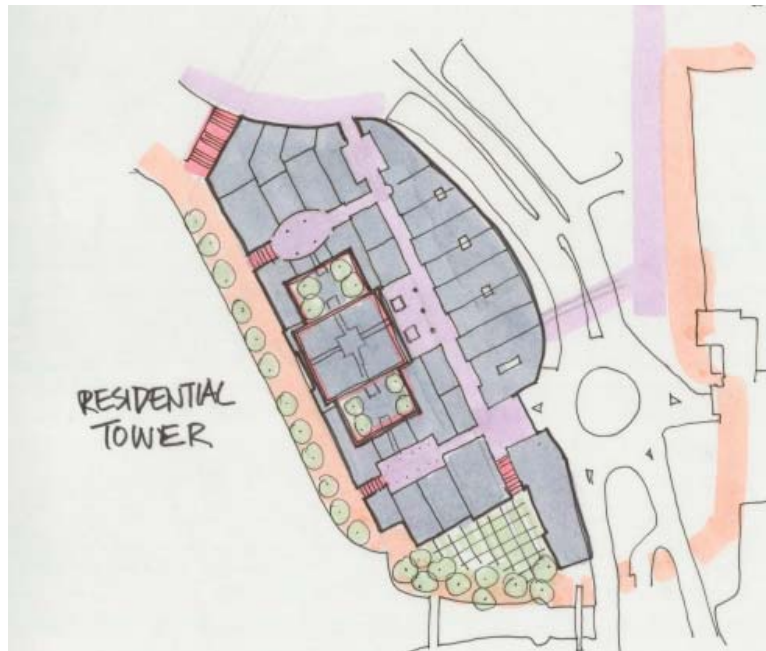
This drawing illustrates the second tower diagram, in which the landscape eats into the available ground plane of the site. This scheme also reflects the idea in the fourth tower diagram, as it turns its back towards the road as part of creating a sense of enclosure within the block on the river side.

This second scheme shows an application of the fifth diagram, where the ground plane and street grid informs the tower location and placement.

The third scheme shows the use of a separate connection diagram, where upper and lower levels

Figure 95, 96:
5 Tower Type Diagrams
Parti Sketch 1
[E. Maeder, 2008]





are connected independently. The tower in this scheme is placed as an independent object in the landscape. Each of the connections is focused on a destination in the context.

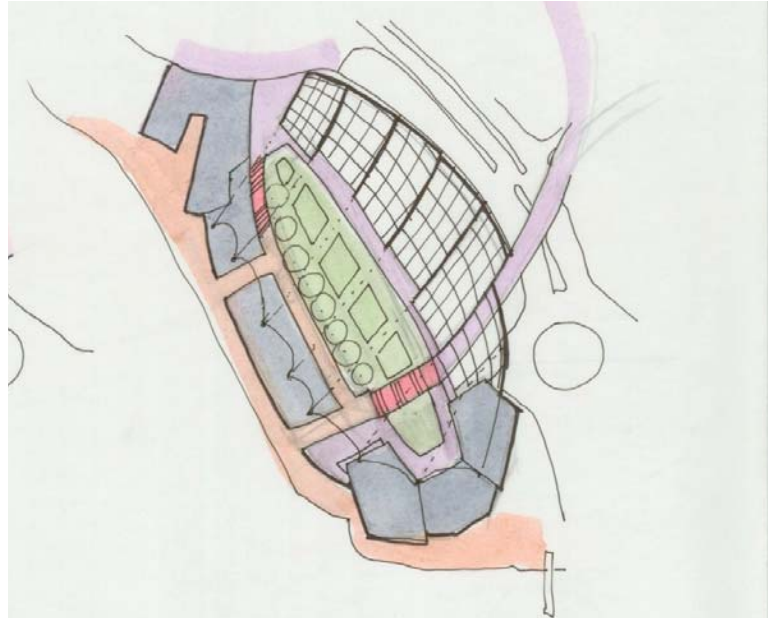
The fourth scheme shows the creation of an internal courtyard that responds like tower diagram three to the road, while incorporating a linear courtyard as the primary organizational element.

The fifth scheme shows a simpler idea of objects



Figure 97, 98:
Parti Sketch 2
Parti Sketch 3
[E. Maeder, 2008]

in a field. Incidentally, this diagram mimics the parti of Riverside South. The criticism of this diagram is that although it provides a clear organization for the towers above, it neglects the needs of the ground



plane. It is quite right to provide the towers with the hierarchical organizing principle, because they are the most formally visible from far away and determine

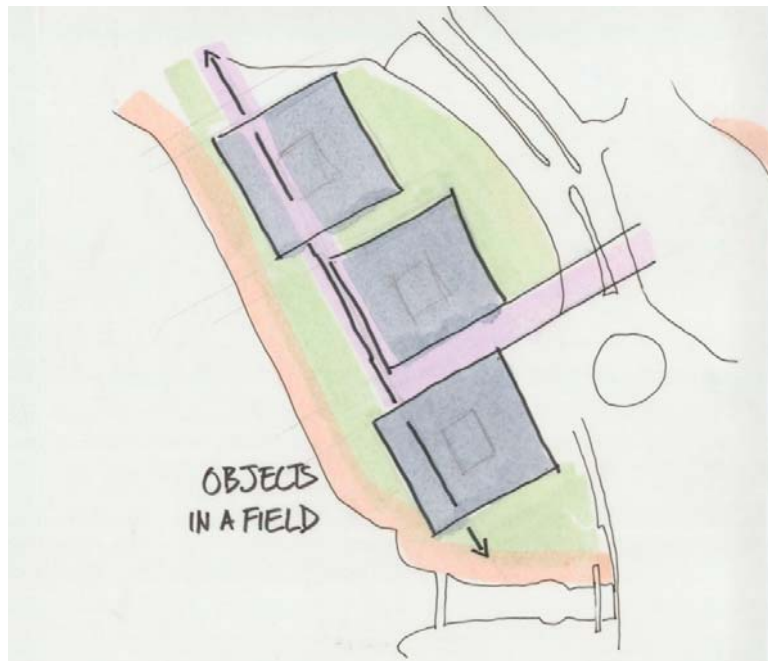


Figure 99, 100:
Parti Sketch 4
Parti Sketch 5
[E. Maeder, 2008]

the overall image of the place. On the ground floor however, it is necessary to respond at a smaller more human scale to the needs of the pedestrians. After presenting these schemes, the realization that they neither fulfilled the requirements of a Passage nor created a satisfactory tower, a new strategy was developed. Riverside South was accepted as the tower formation, and the passage path was developed in response to the context.

Application

This diagram shows the final assessment of the site needs and the location of the main passage between the two towers. The diagram of site responses shows the attention that is paid to connecting the Thames Edge from the Ferry towards the southern edge of the site, and the completion of the Dock Edge circuit. Between the two water level promenades, a path is placed between two nodes that are placed on the edge of these circuits. The diagram of objects in a field is reversed, as voids are placed in a built field.

There are five separate components in the diagram of the site, the Edge of the Thames, The Arcade, The Hall, The Bridge, and the Edge of the Docks. The Edge pieces are composed of a linear connection element, a node, and stairways to link the lower and upper levels. The Passage elements on the inside respond to three different site conditions: the two towers, the car access zone, and the

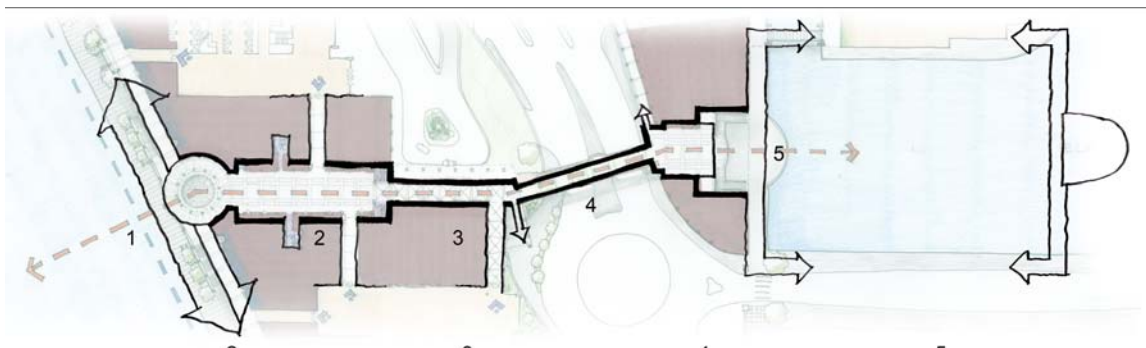
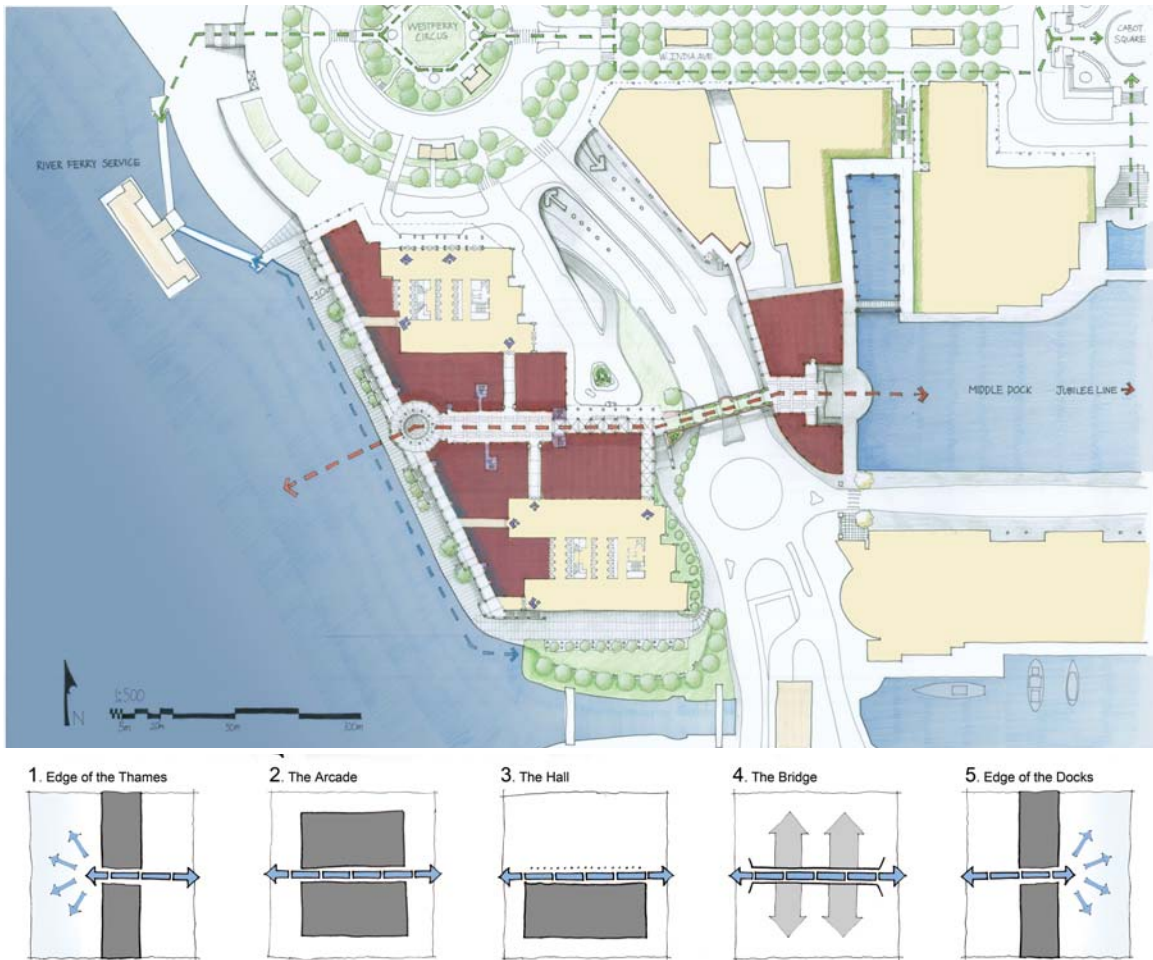


Figure 101:
Diagram of site responses
[E. Maeder, 2008]



roadway. The next pages identify each site response and talk about how the Passage was applied to the site.

Design Diagrams

This figure shows three sets of diagrams: the proposed plan diagram, existing site conditions and proposed site conditions. There is a symmetry in the diagram, about responding to edge, and responding to center. One of the critiques raised about the connector, is that it loses the sense of “Passage” in the middle portion. A second critique of the project was the question of style, and the role it played

Figures 102,103:
Plan, and Diagram of site responses
[E. Maeder, 2008]

in the design application. A third major criticism is the relevance of technology usage. Each of these critiques will be addressed throughout this section as the five individual segments are discussed. These segments are, as diagrammed below: the Thames Edge, the Arcade, the Hall, the Bridge, and the Dock Edge. Both of the edges seek to connect their portion of a larger promenade route. Each of the internal elements that form the Passage portion of the project respond to different site conditions - between skyscrapers, forming an edge, and crossing a road.

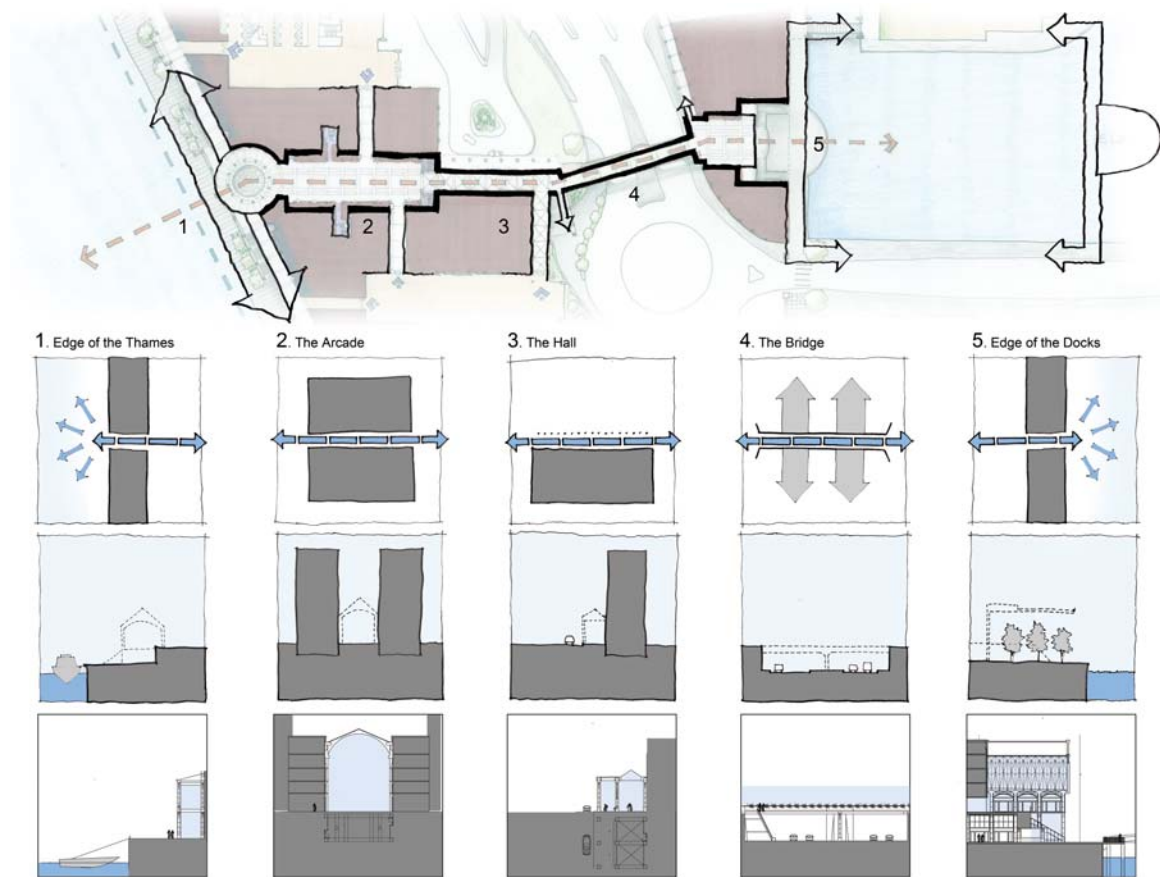
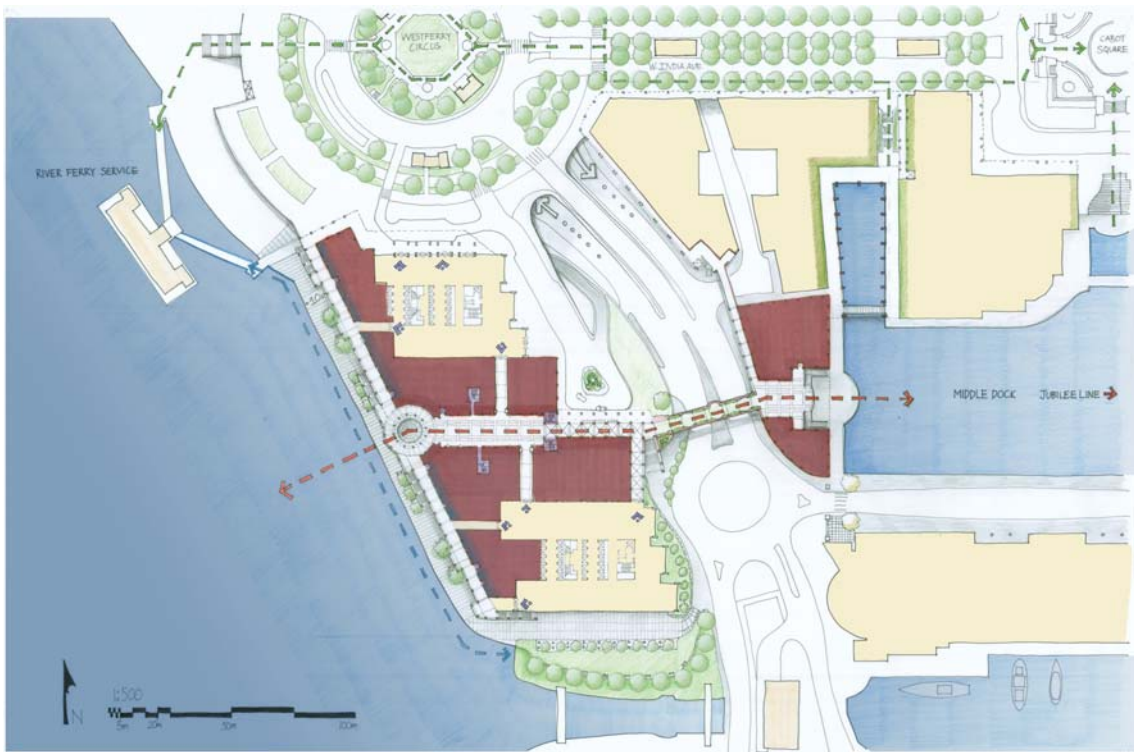


Figure 104:
Diagrams of site responses
[E. Maeder, 2008]

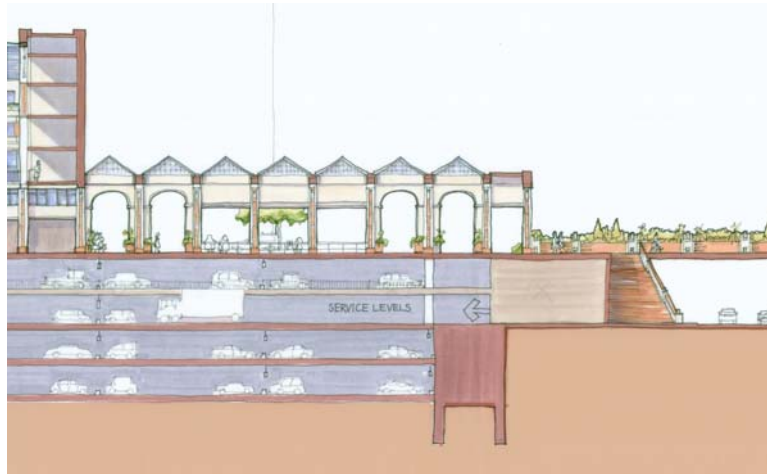
Thames Edge and Arcade



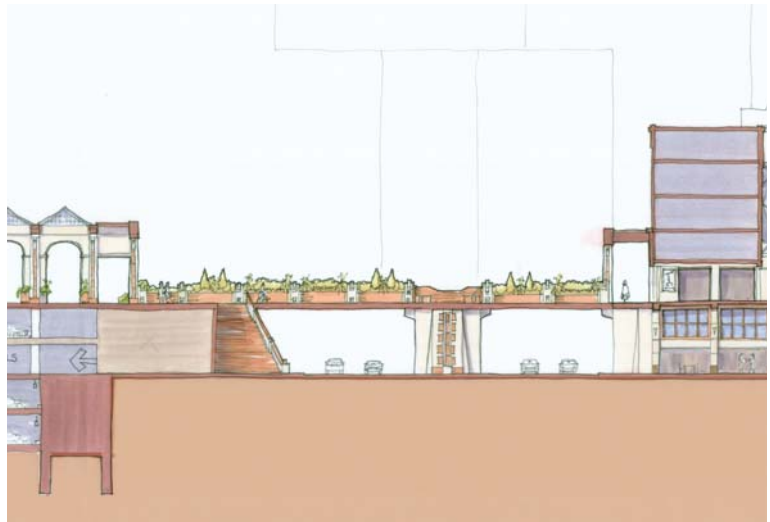
Figures 105, 106:
[E. Maeder, 2008]

Plan

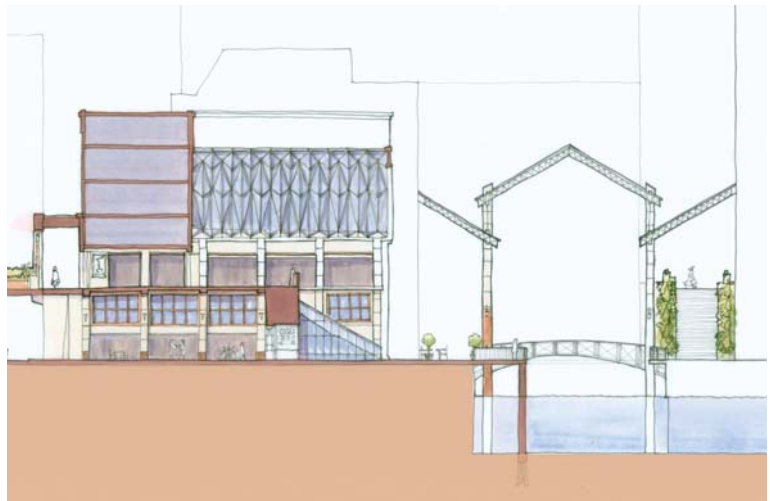
Hallway



Bridge



Dock Edge



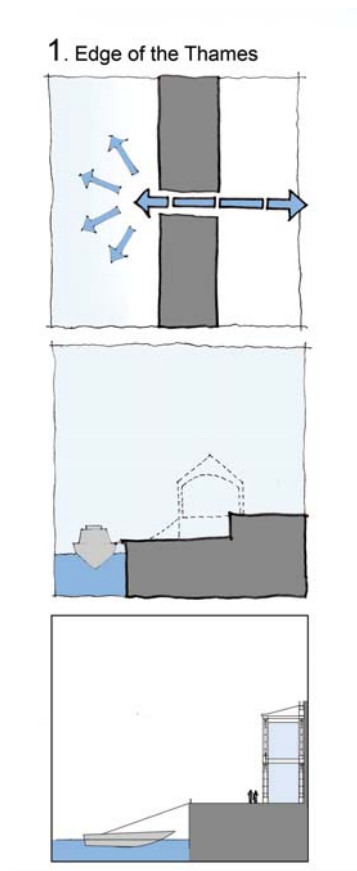
Figures 107-9:
[E. Maeder, 2008]



Riverside Edge

Thames Edge

The design process for the edge of the Thames took a different scale to the rest of the project. The Passage, as the edge to the Thames, was transformed to be directional. This made it less of an arcade, and more of a colonnade. The role this facade played at the scale of the Thames was as a base for to the skyscrapers. One criticism was whether or not the base should reflect the



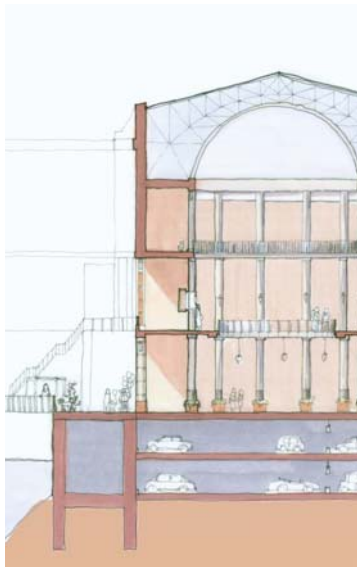
Figures 110, 111, 112:
Diagrams: Riverside Edge, Diagrams of site responses,
Perspective: Nighttime view of Proposed Riverside South Project
Perspective: Revised Nighttime view to include Passage
[E. Maeder, 2008]

style of the towers, or relate more to the existing context buildings in style. In the night renderings of Riverside South, the ground is camouflaged in a nest of trees and generic light sources in the base. These two images respond to that idea by showing the grounding of the skyscrapers by using the colonnade base. The next development would look for an aesthetic that responds to the tower order and visually separates itself as a sheath for the towers. The elevation study for the edge condition shows

Figure 113:
Perspective: View of Riverside South Proposal from the Thames
Perspective: Revised Proposal with Passage in place
[E. Maeder, 2008]



Figure 114:
Perspective: Entry to the Edge from the River Ferry Service.
[E. Maeder, 2008]



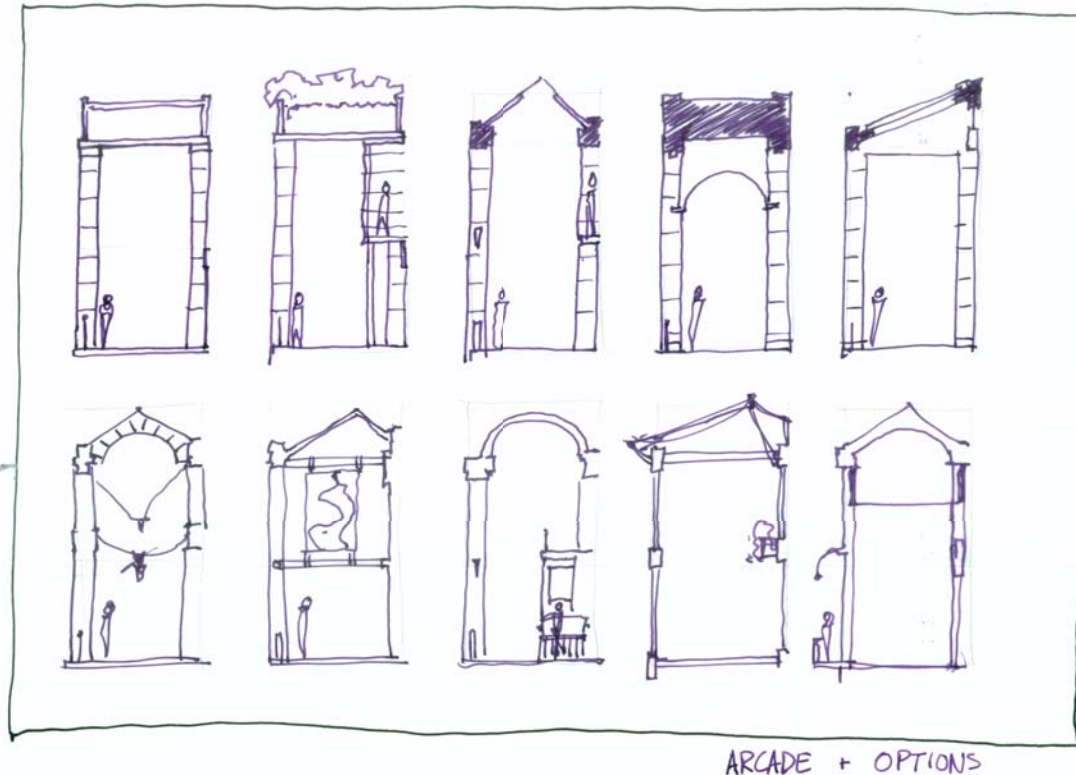
both the number and repetitive nature of a bay system. The neoclassical scheme pays little attention to what is present, but does create a response to the site through its incorporation of hierarchical elements to mark the ends, center, and relief elements. The idea of how to ground the elevation and make it more distinctly heavy on the lower level was discussed. One idea that could have been explored further, was the concept of introducing a material other than stone, and through its tectonics, create a sense of weight that responds to the concept of grounding without being classical in style.

Another version of the elevation that would have been interesting to explore, would have been a tectonic that utilized a non-uniform bay system. This could have created a geometrically balanced architecture, like a Calder mobile, where the shapes were related but transformed by scale and rotation. Different roof types were discussed in the formation of edge. The bay's directionality is formed mostly by the porosity on the ground level, but is enhanced

Figure 115, 116, 117:
 Elevation: Single bay facing the Thames
 Section: Through Node
 Elevation: Process elevation in front of towers
 [E. Maeder, 2008]

even more by the roof plane.

Another discussion of design method for creation of retail elevations is the concept of designing a robust frame for handling the material behind them.



Present day retail will have individual styles that are iconic of the products they sell, and a frame potentially has to be minimal in supporting an already rich design content. The other potential for frame development, is that the frame is of primary importance, and that the contents of the frame must adhere to overall design principles within the frame. A typical response, would be to design a frame in anticipation of a certain content. The content however, can vary tremendously, and so the design process cannot rely on this variable. One strategy for handling this design limitation is to use existing facades as source material. The images

Figure 118:
Diagram: Arcade Roof Covering Options
[E. Maeder, 2008]

on this page show the superimposition of storefront images on a section of the facade. The simplicity of the frame is suddenly put in sharp contrast to the variety of color, activity, and order behind the facades. By comparing the relative visual order and activity of different facade schemes, you can control the overall expression of the place. These examples show the same frame, and different sets of filler.



Uniform bay expression, centralized shop parti.



Color accents varied, order of bay retained

Figure 119,120:
Facade: Frame and Filler
[E. Maeder, 2008]



Color and order variation expressed



Subdued color expression that focuses the viewer on the frame



Randomized Facades with little restriction on color, form or content.

Figure 121, 122, 123:
Facade: Frame and Filler
[E. Maeder, 2008]



Main Arcade Section

Arcade Space

The arcade space of this project is one which functions both as a centering agent for the retail surrounding it, but as a place that makes a main identity for the residents that live in the towers. As such, there is a question of how private the space becomes. During the process, several schemes were considered. As the process continued, the idea of exposing residential circulation systems directly to the main arcade space faded with issues of security, maintenance, access, and cleanliness. Ideally, a residential circulation system could present itself in the arcade, just as long as it was a buffer zone behind which the residences began. The valuable part of an interchange between the residences and the main space is the acknowledgement of the different users in the space. While they might visually connect with one another, there is a distinct physical separation between the two user groups. The architecture mixes the vocabulary of indoors and outdoors, while superimposing public and private groups in the same space. Thus the space has many readings that can change based on the nature of its current occupants.

One of the criticisms offered about the interior of the space at the formal review, was the development of

2. The Arcade

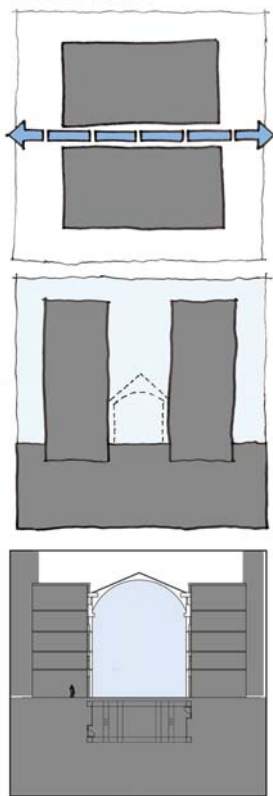


Figure 124,125:
Diagrams: Main Arcade, #2 The Arcade
[E. Maeder, 2008]

the interior tectonics. The image in the perspective showed a thin ceiling member, which could have been articulated in a more stable manner. The interior aesthetic was designed while observing the composition of Galerie Vivienne. The next step of discovering the ideal tectonic expression for the interior would involve a bay study with an idea of how rigid the expression of the interior elements would be. This would enable the frame to be visually rigid enough to withstand a certain degree or type of development.

One of the stronger parts of the design of the arcade was the smaller linking arcades between the skyscrapers and the main space. Their smaller size relates much more to the more intimate passages in size, while the central arcade relates to the width of the grander arcades without being tall enough to have a graceful section. Adding another story would have prepared the space to be more flexible.

One idea that lost its expression was the incorporation of vegetative elements in the architecture. Especially at the roof level where air would be able to circulate freely into and out of the space, placing herbal plants there would lend a new sensory perception to the space giving it the potential to be remembered for smell and not just visual or audible impressions.

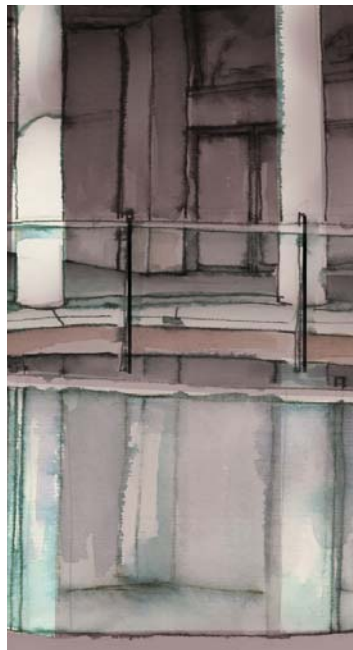
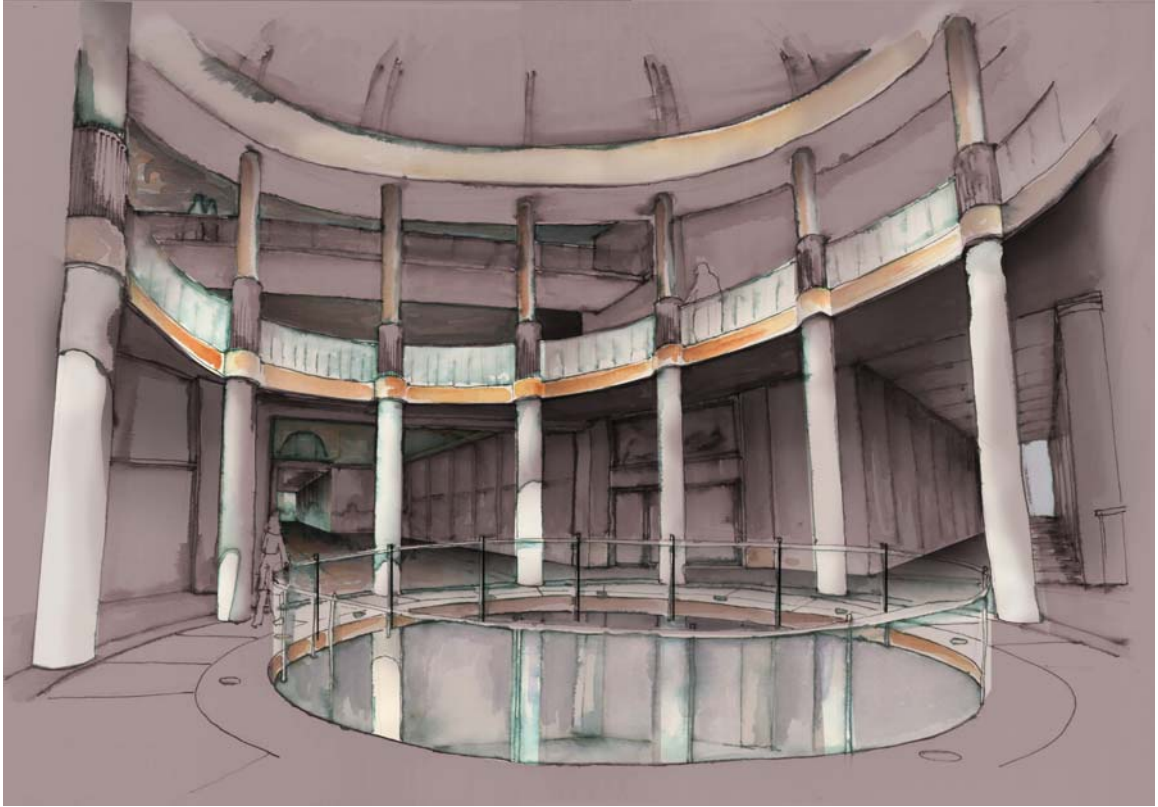


Figure 126:
 Perspective: View of Rotunda Edge Node on the Thames Promenade
 Details of perspective
 [E. Maeder, 2008]



Figure 127:
Perspective: View into Main Arcade Space.
[E. Maeder, 2008]



Figure 128:
Perspective: Entry to the Main Arcade from the Towers.
[E. Maeder, 2008]



Main Arcade Section

The Hallway

The hallway is similar in nature to the Thames edge, in that it is directional. At some level the Thames arcade is less of an arcade and more of a colonnade. These elements of passage were used in this flexible manner to demonstrate the flexibility of a modular bay system. If a typical passage bay designs for four solid sides, then the colonnade designs for three surfaces. Thus, the colonnades of this project were seen as an extension of the passage, with a slightly eroded nature.

The hallway responds to the need for a place for an exchange between motor and pedestrian traffic. This part of the project acts as another link to mass transportation in the form of bus, car, and taxi services. It is both useful for the skyscrapers to have a car-accessible address, and for the arcade to have a drop-off zone where people can access the space conveniently from yet another public transportation link.

One of the more interesting things in this part of the project was the investigation into a glass clip tectonic. As always, the issue with creating these roofs is the removal of water. Another issue brought to light is the signage, which starts to lend the user a sense of space that is reinforced by their location.

3. The Hall

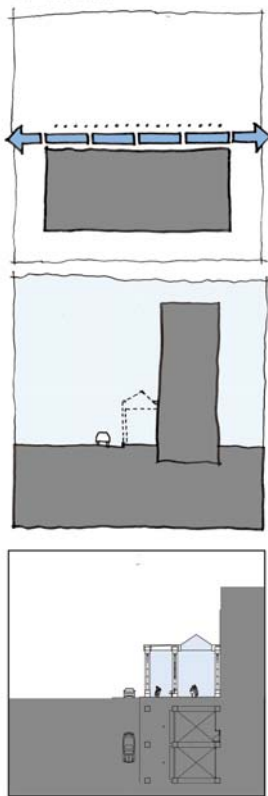


Figure 129,130
Diagrams: Main Arcade, #3 Hallway
[E. Maeder, 2008]



Figure 131:
Perspective: View in Hallway between Bridge and Arcade.
[E. Maeder, 2008]



Main Arcade Section

Landscape Bridge

The greatest perceived weakness of the project was this landscape bridge component. As a continuation of the diagram, it made complete sense. The Main Arcade eroded into the Hallway section, which dissolved even more completely into something more natural. The criticism is that the Passage lost its covered nature in this part of the project. As a diagram and a covered pathway, a more covered landscape element would have made more sense, however in terms of experiencing nature, the more outdoors the space the more complete this experience.

Another reason for the landscape bridge to be more architectural, is the difficulty of growing a decent amount of vegetation on the bridge. Thus, images of Pulteney Bridge in Bath, or the Ponte Vecchio start to surface. The issue with creating shops and stores over the bridge, is the relative size and scale of the bridge is far more significant. On one level you are creating something that is neat for pedestrians to experience, but on the other hand you are creating a nightmare for the car traffic that already has to deal with a monstrous traffic circle.

Before the formal review, the primary issue of consideration for the bridge had been about the angle

4. The Bridge

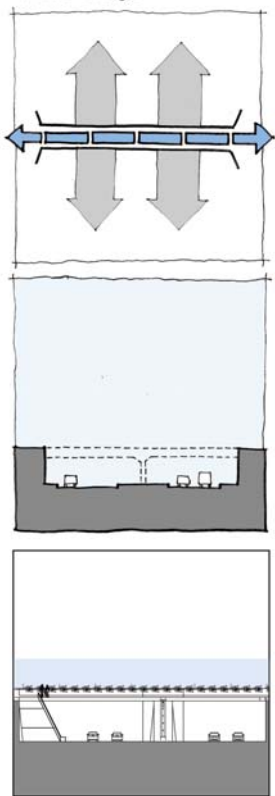
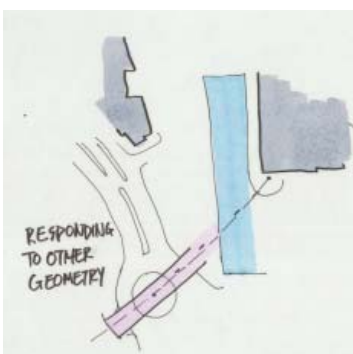
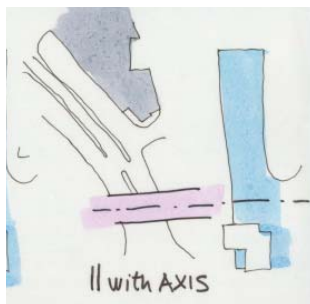
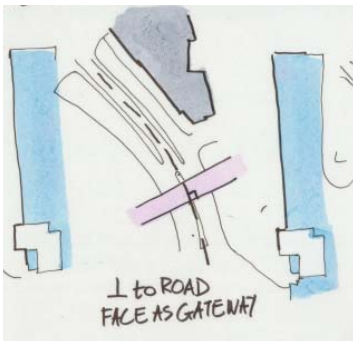
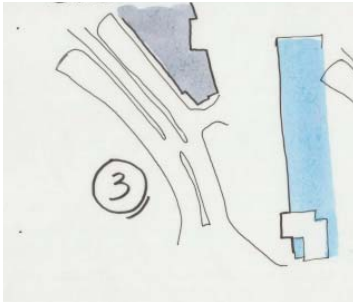


Figure 132, 133:
Diagrams: Main Arcade, #4 Bridge
[E. Maeder, 2008]



of its crossing, and the degree of intersection into the spaces on either side. Without a straight linear connector, it became even more important to treat the space between buildings as its own outdoor room. Therefore, both sides of the road would have been coordinated in order to ensure a spatial continuity that reflected the acceptance of the bridge as part of the design instead of an afterthought. The four connection partis discussed in the design phase were connecting perpendicular to the road, along the axis established in the architecture, as an internal experience, and a crossing that was unrelated to the axis. In the end, the bridge wound up parallel to the road, as it acted as a better visual gateway for car traffic entering the area, it read more as a bridge, and it enabled a transition between the water axis and the axis between the two towers.



Figure 134,135:
Diagrams: Bridge Connection Types
Perspective: View on Landscape Bridge towards the Middle Dock.
[E. Maeder, 2008]



Figure 136:
Perspective: View from Landscape Bridge through towers.
[E. Maeder, 2008]



Dockside Promenade

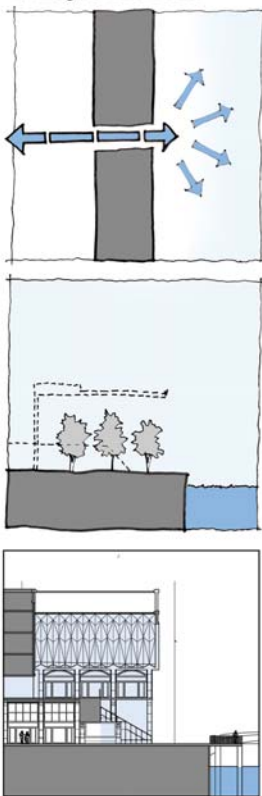
Dockside Edge and Promenade

The design process for the edge condition at the Thames took inspiration from the tectonic qualities of mass transportation spaces elsewhere in the area.

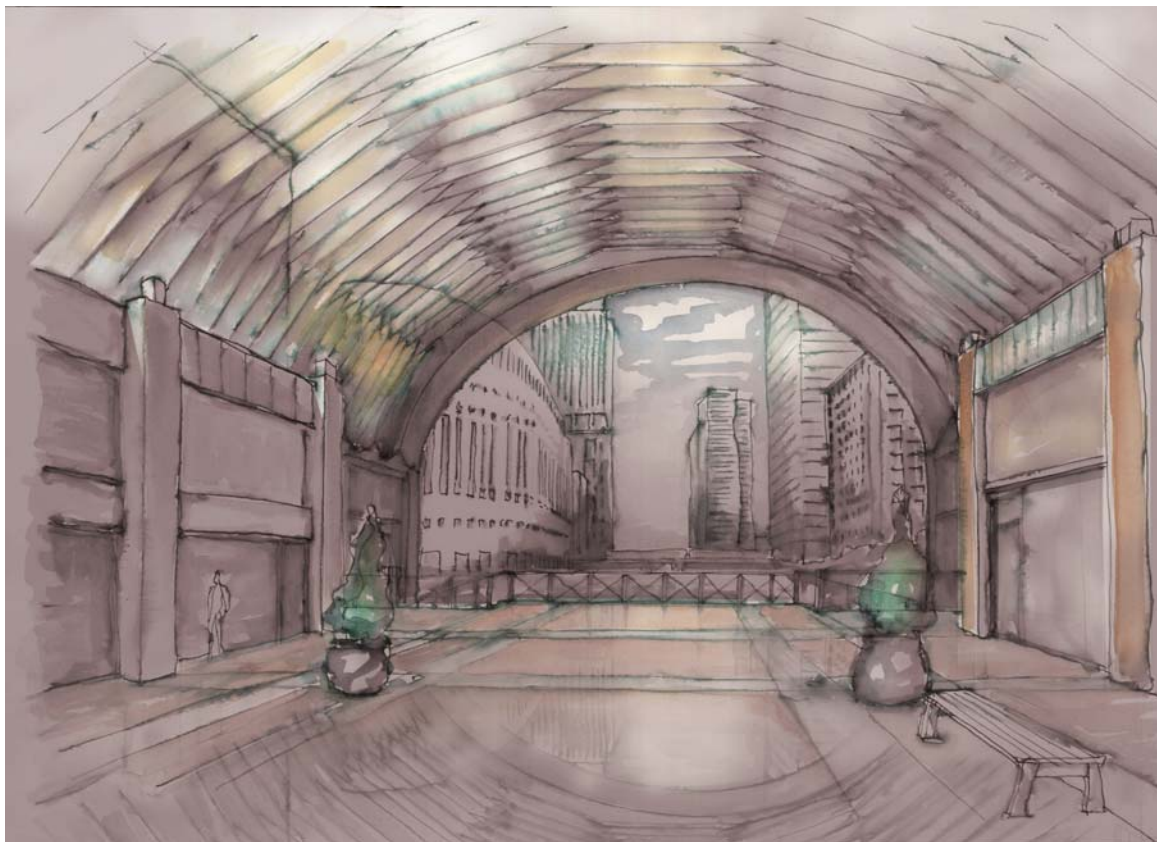
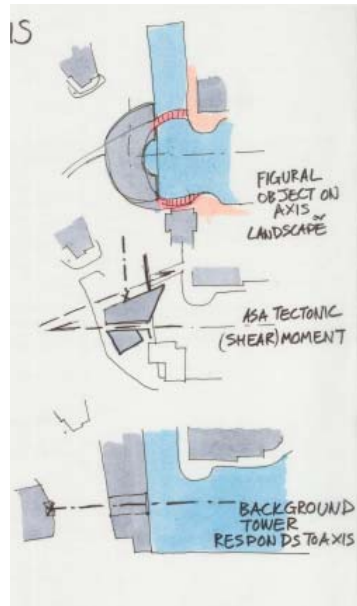
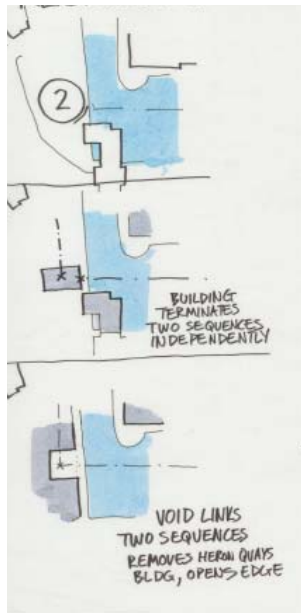
The idea of creating civic space, started to relate to the iconography of the area. The technological expression of mass transport is found in the Jubilee Line train station and in the DLR station. This project, as a connector to the Ferry, could use this space to reinforce the significance of the Ferry as a part of the developing mass transportation of London. As well as relating to public transport, the playful glass roofs are our modern version of the glass covered roofs of Passages in the industrial age.

Covered in symbolism and technological potential, this space was constantly shifting. The major thrust of the exploration lay in folded plate construction, and the three dimensional spatial qualities of a more organic tectonic form than a more traditional bay module.

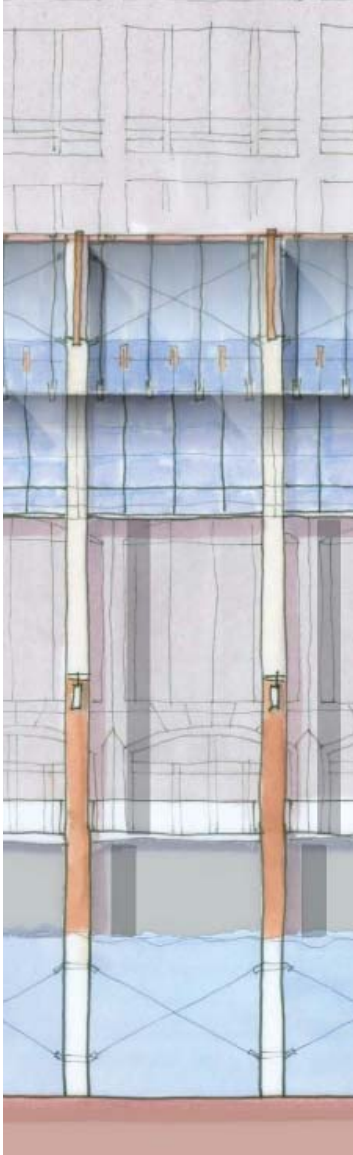
5. Edge of the Docks



Figures 137, 138:
Diagrams: Riverside Edge, Diagrams of site responses,
[E. Maeder, 2008]



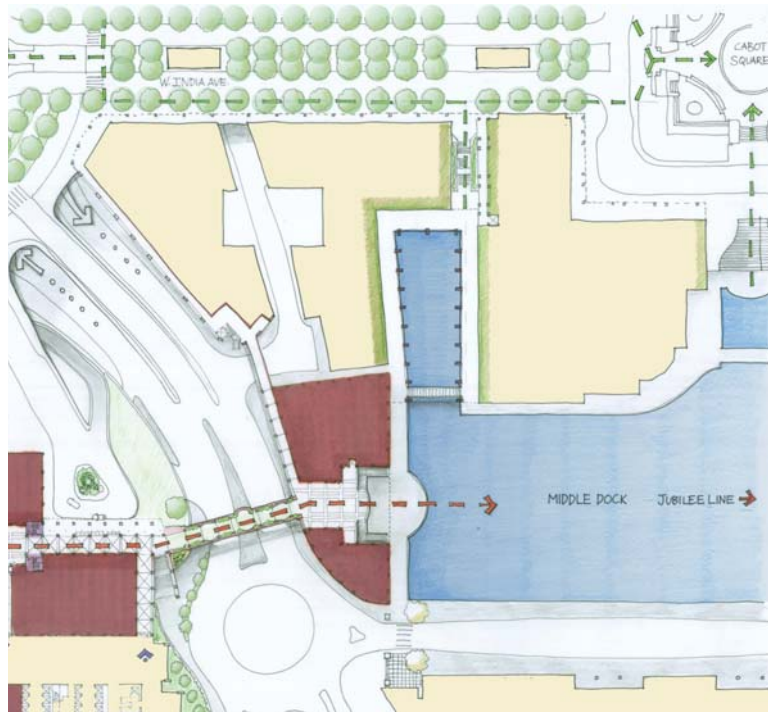
Figures 139, 140:
 Diagrams: Responding to Axis, Entering Dock Dogleg.
 Perspective: View from Dock Edge out over Middle Dock.
 [E. Maeder, 2008]



Dockside Infill Structure

This part of the project was the initial point of departure. It investigated using existing buildings as its context. It was seen as an “invasive” or “parasitic” structure that relies on everything else, or as a spine which organizes the things around it.

The first attitude, of the Passage as parasitic canopy, asks us to question how invasive an



Figures 141, 142, 143:
 Elevation: One bay of Adaptive Infill.
 Plan: Dock Edge Plan
 Section: Shows level transition between upper and lower levels
 [E. Maeder, 2008]

additive structure can be. The design pictured is limited in its invasion, as it is self-supported and touches as lightly as possible upon the context. An extreme version of this could re-skin the facades on the buildings around it to create a uniform space. Another version uses the structure of the buildings, or acts as a lid on the space, appearing weightless.

The second attitude, the organizational spine, questions the order of development. By placing the creation of civic space in the forefront of development, you ensure a designed civic realm. Then, developers respond to the planned civic space, instead of creating moments that may or may not function urbanistically. It takes the guesswork out of planning the pedestrian zone, because it is taken care of first. Thus, the passage becomes the context in which buildings are placed.

This adaptive infill space was the first developed, and it was the test case for figuring out design methods, scale, and context representation. The choice to consider all the context shown in “site 2” left the project open to several

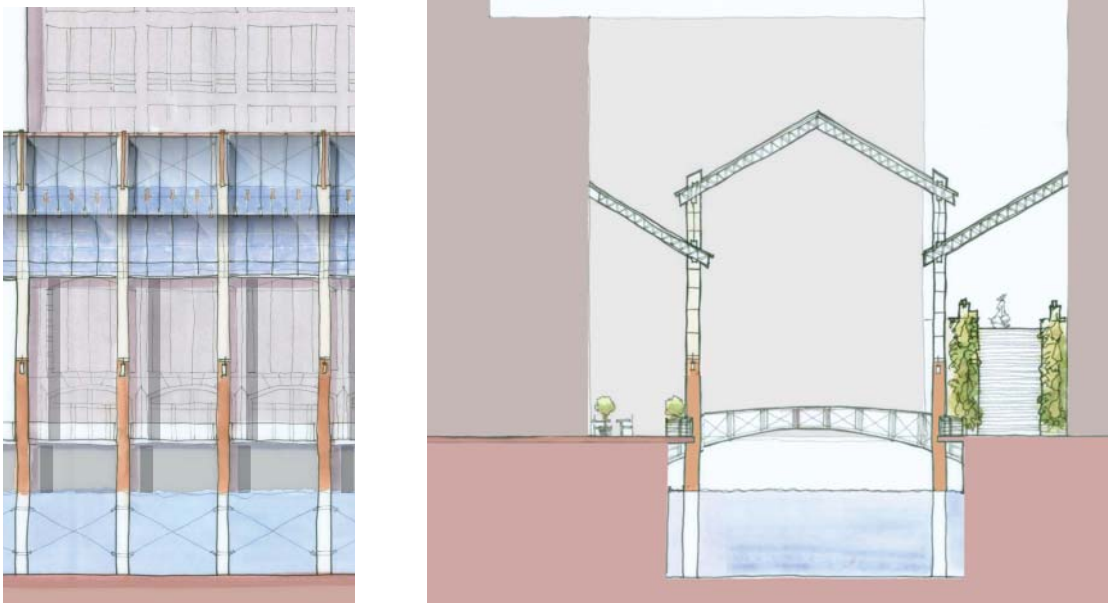
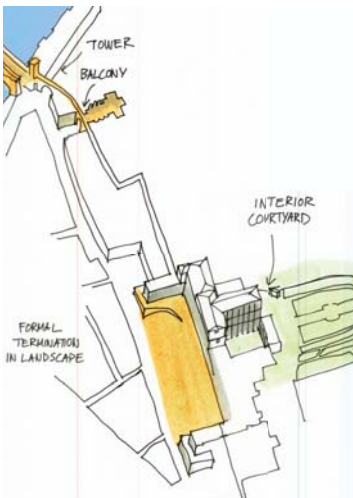
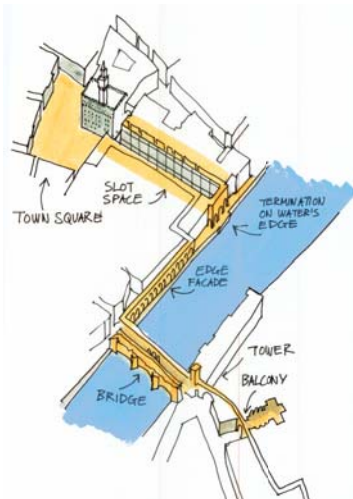
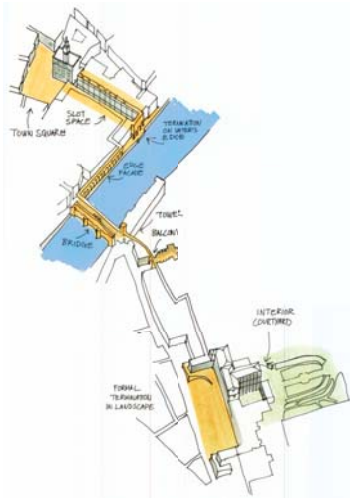


Figure 144,145:
Elevation and Section: Showing the placement of structure in the dock.
The two side wings rely on cantilever from the structure. Cross bracing
and other structure can be hidden below dock level.
[E. Maeder, 2008]



considerations. One of the most important metaphors for considering the role of path in urban design was Vasari's Corridor, an urban path that leads from the Palazzo Pitti to the Uffizi Gallery. It is constructed out of different buildings, is continuous, but responds to site conditions explicitly. The major difference between this urban precedent and this project, is that the corridor was for the nobility and was on the first floor, whereas this thesis project is about a space that is a civic amenity for those who pass through, live there, and work there.

One of the missed opportunities in the formal presentation was the verbal representation of this idea. The conversation focused on style, while there could have been a very interesting discussion about the historical precedents that underscore many of the explorations of the project. The use of Michael Dennis's analysis of this connection could have also translated into a set of analytical drawings that explained this project.

Figure 146:
Vasari Corridor: Axon of the space, enlargements of the axon.
[E. Maeder, 2008]

DESIGN CONCLUSIONS



Figure 147:
View on Mackenzie Walk
[E. Maeder, 2008]

Reflections on the Design Process

Reflecting back on the progress of this thesis, the biggest lesson learned was about the design process. Having an independent design process, and a limitless scope led to much frustration and wandering in search of clarity. In the end, the enjoyment of serendipitous discoveries along the way was where the biggest joys were found.

Among the things that I discovered this semester was a taste of making meaningful and adventurous tectonic decisions, having a chance to experiment with watercolors, and confirming a rigorous process for urban analysis and design.

One of the biggest shortcomings in this project was at the tectonic and architectural scale. Most of the attention in the project was focused on the broad decisions being made, while the clothes and attitude that the project took remained abstract and indefinite.

The next step this project would have investigated would have been a detailed sequence of discovering how to make the image of this urban project real, for several different styles to show how the basic diagram could be interpreted in many different ways.

As a part of a personal process in architecture, the experience of the user has always been paramount. That two comparably beautiful spaces can function in opposite ways (the commercially selfish space vs. the civic noble space), was a challenge to bring to the design process. The challenge of this thesis is to all architects, that they may have a noble spirit and act responsibly towards their clients, both seen and unseen, paying and unpaying.

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